BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Consider Alternative-fueled Vehicle Programs, Tariffs, and Policies.	Rulemaking 13-11-007 (Filed November 22, 2013)

OPENING COMMENTS OF PACIFIC GAS AND ELECTRIC COMPANY (U 39E) ON ALTERNATIVE-FUELED VEHICLE RULEMAKING

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Pursuant to the Ordering Instituting Rulemaking (R.13-11-007) (Rulemaking), Pacific Gas and Electric Company (PG&E) provides its opening comments on the Rulemaking. PG&E's opening comments address (1) the scope of the Rulemaking; (2) the procedural structure and schedule for the Rulemaking; and (3) the specific questions set forth in the Rulemaking.

PG&E welcomes and commends the California Public Utilities Commission's (Commission's) next phase of considering public policies, rules and tariffs applicable to alternative-fueled vehicles (AFVs) which use public utility electricity and natural gas services and facilities. PG&E looks forward to participating and assisting the Commission and stakeholders as the Rulemaking moves forward.

I. SCOPE OF RULEMAKING

The Commission has allowed for an extremely large scope to be reviewed and discussed in the new AFV Rulemaking. As a threshold matter, PG&E recommends that the Commission concentrate on those issues that will help accelerate the plug-in electric vehicle (PEV) market, insofar as the Commission wishes to accelerate the adoption of PEVs. From the research that PG&E has conducted, the major impediments to PEV adoption are:

(1) The upfront cost of the PEV;

(2) The range and associated amount of retail PEV charging infrastructure available; and

(3) Consumer knowledge and awareness of the benefits and costs of PEVs.

To the extent that the Commission engages in evaluation of vehicle-grid integration (VGI) processes, it should focus on addressing one of these three major impediments to PEV adoption. PG&E recognizes that the development of appropriate VGI policies and processes could take a significant amount of time and that the potential benefits are significant, so PG&E recommends continuing with the existing VGI pilots that are focused on this, such as PG&E's demand response PEV pilot.

PG&E does not recommend a focus on PEV electric rates, because the research PG&E has conducted has found that this is not a major impediment to PEV adoption. Based on PG&E's experience with PEV customers, to the extent that rates are sustainable, easily explainable to customers, and provide a simple understanding of incentives included in the rates, then PEV rates are not an impediment to PEV adoption.

To the extent that financing issues encompass projects such as PG&E's demand response PEV pilot, PG&E recommends that such issues can be incorporated into the scope of the proceeding, because there are clearly defined benefits to all ratepayers for utilizing cost-effective PEV batteries and other demand response projects for grid purposes.

PG&E also recommends that the scope of the Rulemaking take into account issues previously considered or currently being considered in other Commission proceedings, particularly existing demand response and energy storage programs that already inform the consideration of vehicle-to-grid integration. In particular, the past or pending proceedings on AFVs, energy storage, electricity procurement and distributed generation identified at pp. 26- 27 of the Rulemaking already include specific policies and issues that substantially overlap with the preliminary list of issues identified in this Rulemaking, such as policies and tariffs for electric vehicle charging; customer-owned energy storage; and customer-owned distributed generation.

Many of the same issues identified in this Rulemaking are not unique to plug-in electric vehicles (PEVs). Accordingly, in order to avoid duplicative and potentially conflicting and inefficient consideration of policies and issues, an initial task of this Rulemaking should be to adjust the scope of the Rulemaking to fully account for other pending Commission decisions and proceedings on energy storage, electric vehicle tariffs, and distributed generation.

Lastly, PG&E notes that the market is still nascent and recommends the Commission continue to monitor and pilot different concepts that are likely to help accelerate the PEV market. This includes evaluating the role of the utility in the PEV market and allowing the utilities flexibility to engage in ways that PEV customers request or expect, such as in developing PEV charging infrastructure for the benefit of PEV customers.

II. PROCEDURE AND SCHEDULE

PG&E agrees with the initial informal procedural approach proposed by the Rulemaking, including initial comments on the Energy Division White Paper, followed by workshops and informal collaboration among Commission staff and interested parties. However, as mentioned previously, the Rulemaking should not be focused on VGI in the abstract, but with the clear intention of developing processes that can help address one or more of the major impediments to PEV adoption.

Also, as mentioned previously, PG&E does not recommend pursuing additional PEV-specific rates in this Rulemaking, because the existing PEV-specific rates and other rates that the utilities offer provide a stable and sustainable foundation for customers to receive the operating benefits from PEVs.

Thus, instead of having Track 2 of the Rulemaking concentrating on PEV rates, PG&E recommends that the Commission instead evaluate the appropriate role of the utility in the PEV market and the business cases associated with PEV infrastructure deployment. PG&E believes that a sustainable PEV charging ecosystem needs to be developed to help alleviate the range concerns of customers. PG&E recommends that the Commission and stakeholders evaluate under what conditions and with what market participants PEV charging infrastructure can be self-sustaining, so that the Commission policies can be developed consistent with the need to mitigate the range concerns of PEV customers.

III. RESPONSES TO SPECIFIC QUESTIONS

A. Vehicle-to-Grid Integration

1. ***Question**: Is the VGI framework proposed in the White Paper a reasonable way to organize VGI activities and scenarios?*

   PG&E Response: Yes, PG&E believes that the Commission's proposed VGI framework in the White Paper is a reasonable way to organize VGI activities and scenarios. In particular, the White Paper notes that VGI issues must be evaluated in the overall context of existing Commission energy storage and distributed generation policies, tariffs and rules. In addition, the White Paper recognizes that, unlike current commercial-scale proposals for energy storage and distributed generation, VGI technology is nascent and not commercially available yet. Thus, this proceeding will need to assess the maturity of VGI technology before determining what appropriate infrastructure and rate design policies to apply to the technology.

2. ***Question**: Do you agree with Energy Division's prioritization of the VGI scenarios?*

   PG&E Response: Yes, PG&E agrees with Energy Division's prioritization of the VGI scenarios. PG&E believes that it is appropriate to acknowledge the current state of development in PEV VGI, with smart charging as a technology that is available today and vehicle-to-grid (V2G) likely many years away. PG&E believes that most of the processes that are required to be developed for smart charging to be efficiently integrated into the grid will be necessary for other, more sophisticated forms of VGI. Thus, it is reasonable to evaluate the less sophisticated modes of VGI to develop a reasonable foundation of processes for later potential applications of VGI.

3. ***Question**: Does the White Paper capture all the utility regulatory barriers to VGI?*

   PG&E Response: The White Paper correctly captures the regulatory barriers and issues related to VGI to the extent that such issues are not unique to VGI, but are also pending or subject to regulatory policies developed in the Commission's energy storage, demand response and distributed generation proceedings. PG&E understands that the White Paper addresses only PEV load management and grid integration issues, and does not address VGI scenarios that assume PEV batteries can be used to supply electricity to the grid from mobile locations, such as residential or commercial charging stations. The White Paper is correct that it may be premature to attempt to identify or address "regulatory barriers" before the EV market has developed beyond its start-up stage and before the technology to support VGI itself has matured or is commercially available. In order to be effective on a commercial scale, VGI must meet the following practicable standards: (1) have a method of measurement for the VGI activity, (2) have a method of communication for the correct VGI action, (3) develop a method to determine the appropriate amount to compensate for a VGI activity, (4) develop a method to determine the correct recipient for any VGI activity, and (5) have processes and safeguards to ensure that the safety of customers and utility workers are maintained. These standards are identified by the White Paper, but the timing for evaluation of regulatory barriers should be clarified in light of the varying maturity of the VGI technologies and uses identified in the paper.

4. ***Question**: How should we address any potential safety and reliability concerns associated with VGI?*

PG&E Response: The potential safety and reliability concerns associated with VGI can be addressed through load research, pilot projects and development of national codes and standards using the "crawl/walk/run" approach to development of new demand response and load management programs used in the Commission's demand response and Smart Grid proceedings.[1/]

B. Alternative Fuel Vehicle Rate Design Policy

1. ***Question**: What is the utility experience to date regarding customer election to use PEV-specific tariffs?*

PG&E Response: PG&E has implemented voluntary residential, opt-in options for PEV-specific charging in compliance with the PEV rate design policies adopted by the Commission in D.11-07-029. In addition, also pursuant to the direction of D.11-07-029, PG&E has updated its PEV rate designs in its 2014 GRC Phase II proceeding, A.13-04-012. However, given the recent availability of PG&E's new non-tiered time-of-use (TOU) rate, there is not yet sufficient PEV load and customer experience data to evaluate whether further changes to the rate design policies approved in D11-07-029 may be needed.

PG&E currently offers two rate schedules for residential customers with electric vehicles. First, Schedule E-9, which is now closed to new customers, includes whole house (Option A) and charging only (Option B) options. Second, Schedule EV, which also includes whole house and charging options, was available to residential customers with electric vehicles effective August 1, 2013, as a result of D.11-07-029. As of October, of this year, PG&E served approximately 5,000 customers on Schedule E-9A and approximately 200 customers on Schedule E-9B. In addition, PG&E served approximately 1,300 on Schedule EV A and 14 customers on EV B.

1/ Cite DR and Smart Grid plans and decisions.

However, PG&E estimates that there are approximately 13,000 residential customers with electric vehicles that are not served under these two optional PEV TOU rate schedules. This is not surprising because customers may elect service under electric vehicle rates or service under rates available to all residential customers. As customers evaluate all possible rates to determine the rate plan that is optimal for their needs, it is expected that there would be a diversity of rates chosen by PEV customers.

2. ***Question**: What issues need to be considered when designing PEV rates for residential charging?*

PG&E Response: As the Commission affirmed in D.11-07-029, the same rate design principles applicable to residential retail rates generally should be applied to the design of PEV rates. A concise summary of the Commission's current goals for residential rate design was provided in Attachment A to the March 19, 2013 ALJ Ruling Requesting Rate Design Proposals issued in R.12-06-013, the Commission's Residential Rate Structure Rulemaking. As a general matter, PG&E believes that parties to this rulemaking should look to rulings from R.12-06-013 for guidance on residential rate design principles. It is possible that future residential rate design changes initiated in R.12-06-013 will reduce or even obviate the need for separate, special-purpose electric vehicle charging rates. However, to the extent that some of the Commission's rate design principles are intended to encourage overall reductions of electricity usage, PG&E recommends that the Commission also consider the statewide consensus that electricity usage may be promoted for cost-effective and environmentally beneficial use as a transportation fuel, provided that this can be done without shifting costs onto other ratepayers. Under currently-existing residential rate structures, experience shows that these goals can be accomplished for many PEV customers by establishing and maintaining sustainable and reasonable off-peak rates for PEV charging.

Current experience shows that this may be most easily done through sustainable and reasonable off-peak rates for PEV customers.

3. ***Question***: *Should the Commission consider new rate tariffs for workplaces providing PEV charging?*

PG&E Response: No, not at this time. PG&E agrees with D.11-07-029 that "we do not see a reason to treat non-residential electric vehicle charging differently from other types of non-residential electricity usage." (D.11-07-029, p. 30.) PG&E agrees that workplace charging is an important factor in PEV adoption and market development. However, existing electric rate schedules for commercial loads, including time-variant and master-metered commercial rates, are adequate to support workplace PEV charging on a cost of service and non-discriminatory basis. In addition, existing metering and wiring configurations at workplaces would also affect the potential adoption of workplace PEV-specific rates and tariffs, but are generally outside the control of utilities.

4. ***Question***: *How can residential and workplace PEV rates incentivize smart charging and allow controlled charging?*

PG&E Response: Smart charging and controlled charging need not require the creation of new PEV-specific rates. The future grid will require flexibility to match changing conditions, and PEV rates are no different than other rates in the need to be based on cost-causation, including access to appropriately cost-based time-variant pricing options. PG&E recommends that the Commission not use this proceeding to "reinvent the wheel" with new PEV-specific rates, but instead evaluate those existing time-variant pricing options and event-based demand response programs that are already available for PEV and non-PEV loads. These pricing options and rate programs already afford ongoing cost-based incentives provided in return for charging load or other electric usage flexibility.

5. ***Question***: *How should the Commission address demand charges for medium - and heavy-duty plug-in electric vehicles?*

   PG&E Response: The Commission should treat the use of demand charges for PEVs the same way it would treat other residential and non-residential loads and customers. All rates should be based on cost-of-service, and the Commission should take care not to create perverse incentives or unintended arbitrage opportunities between multiple classes of alternative tariffs. Demand charges are used to correctly reflect the fixed and variable costs of serving all customers, including PEV charging customers.

6. ***Question***: *What changes, if any, are needed to tariffs related to compressed natural gas vehicles?*

   PG&E Response: PG&E does not believe that any changes to the tariffs related to compressed natural gas vehicles are needed at this time.

7. ***Question***: *What other issues related to alternative fuel vehicle rates should the Commission address?*

   PG&E Response: PG&E recommends that Rule 15 and 16 line extension policies for non-residential customers should be examined as part of this Rulemaking, as provided in previous Commission PEV decisions.

C. Financing

1. ***Question***: *Should the Commission direct the utilities to provide financing to customers to encourage PEV adoption? If so, what financing options should be considered?*

   PG&E Response: At this time, the Commission should evaluate the results of various pilots and programs that the utilities offer to PEV customers, including PG&E's DR-PEV pilot, before considering new financing options.

PG&E's DR-PEV pilot provides a reasonable potential method to provide a financing mechanism for PEV customers, without providing an excessive subsidy and without shifting costs to non-participating customers.

D. General

1. *Question: What changes to the Commission's Rules or new Rules are needed to facilitate the goals outlined in this OIR?*

PG&E Response: As discussed above, the Commission in this proceeding should evaluate changes in law or regulations that would potentially increase the scope and role of the utilities to further support and accelerate the PEV market.

IV. CONCLUSION

PG&E appreciates and supports the Rulemaking, and looks forward to contributing toward new Commission policies and initiatives to support the development of PEV and other AFV markets.

Respectfully Submitted,

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By: *_/s/ Christopher J. Warner_*
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