

**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 PROPOSED GUIDING
PRINCIPLES AND CURRENT PROGRAM ISSUES**

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Pursuant to the July 16, 2014, Assigned Commissioner’s Scoping Memo and Ruling (Scoping Memo), Pacific Gas and Electric Company (PG&E) provides its opening comments on the proposed “Guiding Principles” and Phase 1 program issues identified in the Scoping Memo.

PG&E supports the California Public Utilities Commission’s (Commission) efforts to advance alternative-fueled vehicle-related policies and programs. Plug-in electric vehicles (PEVs) play a critical role in achieving the state’s various climate change and zero emissions vehicle (ZEV) goals. If the Commission acts quickly to adopt guiding principles in this Rulemaking, investor-owned utilities will be enabled to help remove barriers to PEV adoption and accelerate the PEV market in order to achieve California’s climate and energy policy goals.

I. COMMENTS ON PROPOSED GUIDING PRINCIPLES

The Scoping Memo proposed that four “guiding principles” apply to all PEV activities within the scope of the Rulemaking. PG&E generally supports all four guiding principles, with clarifications and additional specificity as discussed in the comments below.

Principle 1: Promote the deployment of safe and reliable AFV grid infrastructure designed to meet transportation and energy service needs while maximizing ratepayer benefits and minimizing costs to all utility customers.

PG&E Comment:

PG&E supports this as a general principle governing the role of utility activities to support and enable the services and infrastructure needed by utility and PEV customers and other participants in PEV markets. However, the Commission should clarify that “AFV grid infrastructure” includes not only traditional utility investment and expenditures to provide retail electricity service to PEV customers, but also includes the types of utility infrastructure that are uniquely needed and supportive of PEV customers and PEV market participants. Just as utility investments and expenditures in demand response (DR) and customer energy efficiency (EE) programs provide direct support and assistance to help retail utility customers manage their energy use and environmental “footprints,” so will utility investments and support for PEV infrastructure and equipment help utility customers who are PEV owners or market participants manage their PEV usage and help achieve California’s overall energy and transportation-related climate change goals. In PEV activities as well as in EE and DR activities, the Commission can and does apply protocols to ensure that utility investments and expenditures are competitively-neutral and transparent.

Principle 2: Target near-term solutions that complement the use of preferred energy resources and utilize the grid efficiently.

PG&E Comment:

PG&E supports this general principle, but does not believe the Commission needs to adopt it as a PEV-specific principle. Under California’s energy and environmental policies, including the preferred “loading order,” all utilities follow policies that support or complement the use of preferred energy resources. Likewise, under California’s Smart Grid statute and the Commission’s Smart Grid policies and plans, all electric utilities follow policies that seek to utilize the electric grid efficiently. If the Commission wants to adopt a general principle like this – one that is directly related to PEV activities – it could adopt the PEV policies adopted by the Legislature in Public Utilities Code Sections 740.3 and 740.8, which define the interest of ratepayers in PEV policies as the “direct benefits that are specific to ratepayers in the form of

safer, more reliable, or less costly gas or electrical service, consistent with Section 451, and activities that benefit ratepayers and that promote energy efficiency, reduction of health and environmental impacts from air pollution, and greenhouse gas emissions related to electricity and natural gas production and use, and increased use of alternative fuels.” (Public Utilities Code Section 740.8).

Principle 3: Incorporate and enhance policies from other, related Commission proceedings to promote efficient program implementation and use of ratepayer funding.

PG&E Comment:

PG&E supports this general principle with the following clarification: Policies from other Commission proceedings should be incorporated in the Commission’s PEV policies *if* the policies are appropriate to the specific needs of PEV customers and PEV markets, and *if* the policies have taken into account or have been modified to meet changing PEV customer needs and evolving PEV markets. This clarification is needed because, unlike other forms of electricity usage, the *increased* usage of electricity by PEV customers and market participants should be encouraged rather than discouraged where the benefits of increased electrification provide cost savings and environmental benefits compared to other transportation fuels. Thus, the methodologies used to evaluate cost-effectiveness and program efficiency in other Commission proceedings and programs may not be appropriate for direct use in evaluating PEV programs where the goal may be higher electricity usage rather than lower or more efficient electricity usage.

Principle 4: Enable and incorporate the full range of values from VGI in a new program as part of the Commission’s overall AFV efforts while remaining technology neutral and allowing for business model innovation.

PG&E Comment:

PG&E supports this general principle if it is clarified to be limited to commercially scalable Vehicle-Grid Integration (VGI) technologies that have completed the necessary RD&D testing, evaluation and piloting and thus are proven to be commercially-available, “off-the-shelf”

technologies. This principle should also make clear that VGI technologies that are not yet proven or commercially available can be considered for utility RD&D funding under the utilities' appropriate RD&D programs.

II. RESPONSES TO SPECIFIC QUESTIONS POSED IN THE RULING

Question 1: Should the Commission adopt the proposed AFV Guiding Principles? What modifications, if any, are appropriate?

PG&E RESPONSE: See specific comments in Section I above. PG&E supports adopting the proposed Guiding Principles in this proceeding to help guide policy discussions, with the clarification and additional specificity discussed in Section I, above. As the PEV market and PEV technologies continue to develop, it is important to recognize the need for flexibility in order to adapt to changing customer needs and prevent unintended consequences. Additionally, new technologies should go through and demonstrate that they are commercially scalable before new programs are established.

Question 2: Should the Commission consider an increased role for the utilities in PEV infrastructure deployment and, if so, what should that role be? If the Commission should consider utility ownership of PEV charging infrastructure, how should the Commission evaluate “underserved markets” or a “market failure” pursuant to D.11-07-029? What else should the Commission consider when evaluating an increased role for utilities in EV infrastructure deployment?

PG&E RESPONSE: Yes, the Commission should clarify its prior policies on utility EV activities and encourage utilities to participate in PEV infrastructure deployment to support California's EV and climate change goals. California's long-term greenhouse gas (GHG) emissions reduction targets for reducing emissions to 1990 levels by 2020 and 80% below 1990 levels by 2050 require multiple and concerted action by all sectors of the California economy, including the utility and transportation sectors.^{1/} California's transportation sector provides

^{1/} California Executive Order S-3-05, issued June 1, 2005, <http://gov.ca.gov/news.php?id=1861>.

significant opportunity in helping achieve these targets, as it accounts for about 36 percent of California's GHG emissions.^{2/} In 2012, in recognition of the important role that alternative-fueled vehicles play in achieving the GHG emissions targets, Governor Brown established a long-term target of deploying 1.5 million zero-emission-vehicles (ZEVs) in California by 2025, including deploying adequate infrastructure to support 1 million ZEVs in California by 2020.^{3/}

Achieving the state's longer-term GHG emissions and ZEV targets requires significant investment and timely action. Current PEV market conditions raise serious and immediate questions regarding the ability of California to meet the 2025 and 2020 ZEV goals. In addition, recent failures and withdrawals of public and private investment from PEV markets and infrastructure development indicate further instability in PEV markets.

In light of California's PEV deployment and infrastructure goals and the recent decline in PEV market investments and participants, the Commission's prior policy on utility ownership and participation in PEV markets needs to be updated. In summary, *if the State is to achieve its near-term 2020 and 2025 PEV deployment and infrastructure goals, the issue is not whether utilities should be permitted to participate in PEV markets and own PEV infrastructure and equipment, the issue is how fast can utilities scale up their participation and ownership in order to support California's PEV goals in a transparent and competitively-neutral way, at a reasonable cost.*

Developments in PEV markets over the last three years have demonstrated that utility participation in supporting and enabling PEV markets is essential. Independent EV equipment suppliers and charging entities have failed or withdrawn from the EV charging market, in many cases because they have been unable to fund the utility and non-utility infrastructure and equipment necessary to serve a mass PEV market. Multi-family and commercial building

^{2/} First Update to the Climate Change Scoping Plan, California Air Resources Board, May, 2014, p. 46, http://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf.

^{3/} California Executive Order B-16-2012, issued on March 23, 2012, <http://gov.ca.gov/news.php?id=17472>.

owners and large employers are unable to deploy PEV infrastructure and equipment to serve their tenants and employees because the streamlined integration of utility PEV infrastructure and PEV charging equipment and facilities is not encouraged or even authorized by the Commission. The investment needed to establish public PEV charging facilities using off-the-shelf fast-charging technology has not materialized, and there are no large investors on the horizon who indicate their willingness to invest in public fast-charging infrastructure and services.

Under these pessimistic PEV market conditions, committed investment by California's utilities in PEV infrastructure that is competitively neutral and reliable at a reasonable cost is essential to stabilize and turn around the developing PEV market. Utility investment also can build a foundation to enable future sustainable investment in mass-market PEV facilities and equipment from multiple sources.

Removing these barriers to PEV market adoption and infrastructure deployment is crucial to helping achieve California's energy and environmental policy goals. According to the research PG&E has conducted, the major barriers 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. Additional research that PG&E has conducted shows that utility involvement in the installation of a home charger is highly important to customers who intend on purchasing a PEV. Furthermore, a utility's relationship to the customer as an electricity provider makes the utility a natural fuel provider in PEV markets.

The importance of utility involvement is evidenced by the customer inquiries received by PG&E's Building and Renovation Service Center (BRSC), the call center where PEV customers are routed for PEV-related utility metering and infrastructure upgrades. Prospective and current PEV customers often call the BRSC asking for information on whether they need to install a charging station and whether PG&E can provide installation services.

At the same time, a broader enabling and supportive role by utilities in EV infrastructure and deployment can and should be competitively neutral, transparent, and provided at a

reasonable cost. PG&E and other EV market participants cannot predict all the various kinds of utility and non-utility investment and support for PEV deployment and infrastructure that may be provided at a reasonable cost and beneficial to utility and PEV customers. However, as PG&E pointed out at the recent prehearing conference relating to SDG&E's PEV investment proposal, the Commission should encourage the utilities to come forward with innovative, creative proposals for PEV investment and support that demonstrate factually that the proposals will support and benefit California's PEV goals and are competitively-neutral, transparent and provided at a reasonable cost.

For these reasons, PG&E recommends that the Commission clarify its prior policies on utility ownership of PEV facilities and equipment. The revised Commission policies should authorize utilities to recover the costs of utility investments and expenditures in EV equipment, facilities and infrastructure where the utilities demonstrate that the investments or expenditures provide benefits to utility customers at a reasonable cost, support and promote the deployment of PEVs and PEV infrastructure consistent with California's PEV goals and climate change policies, and are conducted in a competitively neutral and transparent manner.

Question 3: What education and outreach activities must the utilities provide to support further customer PEV adoption? What existing resources are available for these activities and what additional resources are needed?

PG&E RESPONSE: Many of PG&E's current PEV-related education and outreach activities focus on grassroots community-level efforts, including supporting test drives and providing education on PEV rate options and the total cost of ownership. Current efforts include supporting ride and drive events in some parts of PG&E's service territory, leveraging the state's vehicle rebate program to provide applicants direct email communications with rate information, and piloting web tools for educating customers on the benefits of owning and operating a PEV.

While these limited education and outreach efforts to date have provided valuable insight into what is helpful to customers, PG&E has not been authorized significant funding for broader, mass-market PEV efforts, and there is an opportunity to scale these limited efforts to reach all

PEV customers in PG&E's territory. For instance, providing test drives in a neutral setting at numerous locations across PG&E's service area where customers are able to test drive various models of PEVs outside of the dealership without the pressure of having to make a purchase can provide a positive PEV experience to customers. These test drives also provide an opportunity to educate customers on the benefits of using electricity as a transportation fuel. With the success of its limited program of ride and drives, PG&E recommends that the Commission authorize utility funding to offer more ride and drive events.

Additionally, through customer calls at the BRSC, PG&E has learned that PEV customers require dedicated support. PEV customers have the longest call times in the BRSC due to the complexity and breadth of their questions. Current and prospective PEV customers are interested in receiving complex and individualized rate analyses. Additional, more robust tools would be helpful in providing customers with support. Being able to provide resources to enable customers, workplaces, and communities to get plug-in ready would be a beneficial extension of customer support. PG&E also has begun piloting web tools that help customers understand the benefits of owning a PEV in terms of the total cost of ownership. This pilot will attempt to identify the communication channels that meet customer demands. Identifying the appropriate communication channels and developing tools using those channels would be very beneficial to widespread education efforts. Understanding and deploying additional support through various communication channels would require dedicated and significant funding.

Existing resources are limited to funding in PG&E's General Rate case for general customer education and outreach efforts on PEV rates. While PG&E has been able to provide successful educational activities, providing these efforts on a larger scale requires additional dedicated funding. For these reasons, PG&E recommends that the Commission authorize the utilities to file proposals for expanded funding of objective, competitively-neutral customer education and outreach activities that promote the benefits of using electricity as a transportation fuel.

Question 4: How should the Commission mitigate the impact of demand charges, if at all, on entities pursuing transportation electrification?

PG&E RESPONSE: PG&E does not recommend that the Commission “mitigate” the demand charges applicable to customers because they own or operate PEVs or other electricity-using AFVs. The Commission should treat the use of demand charges for PEVs the same way it would treat other residential and non-residential loads. All rates should be based on cost-of-service, and the Commission should take care not to create perverse incentives or unintended arbitrage opportunities among multiple classes of similarly-situated customers on alternative tariffs. Demand charges are used to correctly reflect the fixed and variable costs of serving all customers, including PEV customers.

While ratemaking is complex, it is important to understand why demand charges exist. In addition to providing energy, utilities are required to maintain enough capacity to supply the energy needs of all customers simultaneously (e.g. peak usage). There are fixed costs associated with the infrastructure required to maintain the capacity. Demand charges cover the fixed costs of providing a guaranteed level of capacity to customers.

Question 5: How should the Commission identify and consider in this proceeding best practices achieved and lessons learned from current AFV pilot project results?

PG&E RESPONSE: The Commission should leverage the work that has already been completed as part of this proceeding. In response to ALJ Moosen’s request, the three Investor Owned Utilities filed a Joint Statement of PEV Related Proceedings, approved Alternative-Fueled Vehicle pilot programs now in progress and PEV-related compliance activities underway or anticipated as a result of recent decisions (Joint Statement).^{4/} The Joint Statement provides relevant dates and reporting requirements for each AFV pilot project and was made available to

^{4/} See the Joint Statement of Related Proceedings filed by Southern California Edison Company, Pacific Gas and Electric Company, and the San Diego Gas and Electric Company on June 13, 2014 in R.13-11-007.

parties in this proceeding. Moving forward, to the extent that the pilot project results are relevant to the issues discussed in this proceeding, the results should be referenced in this proceeding to help incorporate lessons learned into new AFV policies.

Questions 6- 13: Per the procedural guidance for Phase 1 in the last two paragraphs on page 16 of the Scoping Memo, PG&E will provide responses to Questions 6- 13 in the workshops and further comments scheduled for October, 2014.

III. CONCLUSION

PG&E urges the Commission to move forward expeditiously to provide guiding principles to all PEV market participants on the appropriate role of utilities in promoting and supporting PEV deployment and infrastructure. PG&E appreciates and supports the Commission's efforts in supporting the PEV market, and looks forward to contributing toward new PEV policies and initiatives.

Respectfully Submitted,

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