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)

REPLY COMMENTS OF SAN DIEGO GAS & ELECTRIC COMPANY (U 902 M) TO COMMENTS ON THE ORDER INSTITUTING RULEMAKING TO CONSIDER ALTERNATIVE-FUELED VEHICLE PROGRAMS, TARIFFS, AND POLICIES

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Table of Contents

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I. INTRODUCTION

San Diego Gas & Electric Company ("SDG&E") respectfully submits the following Reply to Comments to the Commission Order Instituting Rulemaking to Consider Alternative-Fueled Vehicle Programs, Tariffs, and Policies ("AFV OIR") filed on November 22, 2013.

SDG&E is pleased with the level of stakeholder participation in the opening comments for this proceeding, which will be vital for the rapid growth of the AFV market in California necessary to meet the Governor's Zero Emission Vehicle ("ZEV") Action Plan targeting 1.5 million ZEVs in California by 2025[1]. SDG&E supports the Commission's leadership in addressing the ZEV Action Plan and goals. As SDG&E stated in its opening remarks, SDG&E recommends that the Commission focus more broadly on electric transportation market development, rather than just the narrower concerns of business segment development. SDG&E asks the Commission to exercise its oversight role to use the utilities as a regulated, efficient and effective means to help accelerate the growth in the overall AFV market, as was done during the

[1] California Executive Order B-16-2012.

formative years in the development of the energy efficiency market.

SDG&E contends that all customers can benefit from the addition of flexible PEV charging loads when the energy storage characteristics inherent in PEVs are used to improve system utilization, grid reliability and the integration of renewable energy resources.

II.
PRIORITIES

A. The Need for Pilot Programs and Data Collection to Inform CPUC Policy

The need to explore pilot programs is a common theme among the parties' opening comments. This is particularly important when PEV customer preferences are behaviorally expressed in response to new rate and/or technology options, especially those that offer more customer choice. As pointed out by the Office of Ratepayer Advocates ("ORA"), as changes in tariffs are considered, the utilities should research customer response through pilot programs, before such changes are adopted.[2] In cases where tariff and technology solutions are considered together, the Natural Resource Defense Council ("NRDC") suggested that the Commission facilitate more active and automated load control and variable pricing in the workplace context.[3] Similarly, Southern California Edison ("SCE") recommended that the Commission engage with the utilities to gather more data on workplace charging in combination with other utility pilot projects to better inform future policy development.[4] SDG&E agrees, and believes that with Commission oversight, utility pilots and studies on customer preferences and responses are necessary to help inform policy in a manner that supports market-based solutions, fosters innovation, and addresses environmental justice interests.

Further, the California Independent System Operator ("CAISO") asserts that the near term use cases should focus on exploration of managed charging and the relationship between the PEV driver and the utility grid.[5] SDG&E supports this approach since: (a) the CAISO does

[2] Office of Ratepayer Advocates Comments, at pp. 3-4.
[3] National Resource Defense Council Comments, at p. 12.
[4] Southern California Edison Comments at, p. 24.
[5] California Independent System Operator Comments, at pp. 2-4.

not have utility grid condition visibility; and (b) only the utility has the information necessary to implement grid-integrated charging optimization based on its distribution system conditions. Given these unique characteristics, the utility can play a lead role in the development of grid-integrated charging, in line with the objectives of the VGI White Paper. Given the magnitude of possibilities presented by VGI, NRG Energy encourages the Commission to implement additional pilot programs.[6] As General Motors noted in its comments, it is important to reconcile both complexity and value within the VGI framework, and to better understand the cost and benefits of various VGI measures.[7]

Finally, PG&E recommended that the Commission replace Track 2 of this rulemaking with an evaluation of the appropriate role of the utility in the PEV market with a specific emphasis on PEV infrastructure deployment.[8] Since examination of the utility role is already within the scope of this proceeding, and could be addressed in Track 1, a separate track is not necessary. Moreover, this proceeding is designed as a mid-stream assessment of the utility role in the AFV market, and the Commission does not intend to delay the gathering of practical experiences gained through pilot programs.[9]

Simple, near-term solutions that increase customer choice through innovative pricing and VGI enabling technology that improve utilization of the grid should be explored first. The emphasis should be placed on learning more about how customers respond to price signals. Efficient customer charging behavior can facilitate cost minimization for both the grid and the fuel cost for the AFV customer. This benefits all utility customers through improved utilization of the grid and the effective integration of renewable energy resources. The utility is well suited to serve as a principal means to explore VGI alternatives, provide data to inform Commission policy and help all stakeholders better understand the effectiveness of customer-choice driven solutions. To this end, the Commission should encourage submission and consider approval of

[6] NRG Energy, Inc. Comments, at p. 4.
[7] General Motors Comments, at p. 6.
[8] Pacific Gas & Electric Comments, at pp. 3-4.
[9] R.13-11-007, at pp. 14-15.

utility proposals for pilot programs intended to explore the benefits of grid-integrated charging, PEV energy storage solutions and the increased utilization of renewable energy resources, as part of an overall VGI platform.

B. Right-Sizing of Charging Equipment to Meet Customer and Grid Needs

Several parties commented on and even stressed preferences for charging equipment options, characterizing in a definitive manner the tradeoffs between Level 1 and Level 2 charging options[10] and charging level alignment with rates.[11] SDG&E emphasizes, based on its recently concluded PEV rate pilot that, as with pricing and rates, the customer will ultimately decide the preferred type of charging equipment needed in light of their charging needs. As the Commission explores VGI alternatives (e.g., through utility pilots), customer charging preferences will need to be taken into account when designing grid optimization measures. This drives the development of the enabling technology, especially when innovative PEV electric rates are included in the solution. Within the VGI framework then, there needs to be increased flexibility to meet the vehicle charging needs of the PEV customer. This is best achieved with a wide range of charging equipment (e.g., Level 1 and Level 2) to meet the needs of both the customer and the grid.

As conveyed through SDG&E's presentation at the December 4, 2013 workshop, in its own workplace charging study currently underway, the level and type of PEV charging equipment was right-sized with a blend of Level 1 and Level 2 charging to allow for slow as well as very rapid charging rates, as the grid conditions and/or employee charging needs dictate.[12] Especially in the case of VGI, employing technology that increases the ability to manage the rate of charge is essential. In general, just as there are different makes and models of PEV to meet the varying needs of PEV consumers, so is there a variety of charging equipment to meet customer needs in terms of cost, rate of charge, battery capacity of the PEV, complexity and

[10] ChargePoint, Inc. comments, at p. 6.
[11] Office of Ratepayer Advocates comments, at p. 9.
[12] SDG&E's Workplace Charging (VGI) Study.

limitations of installation, among other considerations. SDG&E believes that it is in the best interests of the PEV market and PEV drivers that growth in and expansions of charging technology, as well as business models occur. As SDG&E stressed in the opening comments of this proceeding, even handed policies that avoid preferences for one technology or business model over another should be pursued. Let the market participants and customers determine preferences.

In line with the right-sizing of charging level to meet customer needs, energy management systems ("EMS") or other load management measures as a means for minimizing the energy bill impact are worth exploring. General Motors states that for facilities with a diversity of load at their premises, such as with workplace, MuD and related commercial settings, there is potential for the efficient integration of PEV charging loads at a customer's premises through EMS.[13] SDG&E agrees. The White Paper focused mainly on the segregation of PEV charging loads, when in fact, many customers can minimize their bill impacts by taking advantage of the flexible nature of PEV loads in the context of the total site load diversity with simple load management measures available today.

C. Financing and Financing Related Measures

There were a number of parties that commented on the financing and financing-related subject area.[14] In the case of financing programs in the PEV space, SDG&E does not currently see value in utilities offering such programs and does not believe that it would be appropriate to mandate such programs. Also, some parties commented on other financing-related measures that have been and continue to be investigated in the energy efficiency space, such as On-Bill Financing ("OBF") and On-Bill Repayment ("OBR").[15] As SDG&E advised in its opening comments, the market conditions surrounding the need for OBF and OBR are unique to the energy efficiency market and are not directly applicable to the AFV market.

[13] General Motors Comments, at p. 6.
[14] ChargePoint, Inc. Comments, at pp. 12-14; Marin Energy Authority Comment, at p. 6; CPI/CEC Comments, at pp. 11-13; and CESA Comments, at p. 8.
[15] ChargePoint, Inc. Comments, at pp.14-15 and CESA Comments, at p. 8.

D. Rates

SDG&E agrees with PG&E and SCE that demand charges are the appropriate means to recover infrastructure costs from customers.[16] Demand charges send accurate price signals regarding the costs of infrastructure and encourage the conservation of infrastructure consistent with the Commission's rate design principles.[17] Customers have the ultimate flexibility as to when and at what level they utilize energy, and an accurate price signal allows them to make economically efficient decisions, for example, with customer premises load management measures, as described by General Motors.[18]

Arguments by parties such as ORA, GPI and CEC against demand charges, or advocating for exemptions from demand charges for limited periods, runs counter to the Commission's rate design policy goals for accurate price signals, conservation of infrastructure and encouraging economically efficient decision making.[19] Providing rate subsidies by exempting EV customers from demand charges also runs counter to the Commission's goal that to the extent that subsidies are necessary to encourage charging they should be provided in a direct and transparent manner.

As noted by CALSTART and TURN, SDG&E does see that there is the opportunity to unlock greater potential from well-integrated workplace charging through alternative, flexible and accurately priced rate designs.[20] A customer who makes the choice to harness the value of the PEV load flexibility regarding when and at what level that customer charges could, in return, have access to alternative, flexible rate designs. Additionally, alternative rate designs could also be designed to adjust dynamically to utility grid conditions and seasonal patterns, a need acknowledged by the California Independent System Operator.[21] For example, rates could be designed to account for winter and spring conditions that have high levels of intermittent wind and solar energy, combined with typically low loads.

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[16] Pacific Gas & Electric comments, at p. 9; Southern California Edison comments, at p.25.
[17] R.12-06-013.
[18] General Motors, at p. 6
[19] Office of Ratepayer Advocates comments, at p. 11; Green Power Institute and Community Environmental Council comments, at pp. 13-14.
[20] CALSTART comments, at p. 4; The Utility Reform Network comments, at pp. 7-8.
[21] CAISO Comments, at p. 4.

SDG&E also is concerned by comments from some parties such as IREC and ORA that seek to link rate design to combinations of customer technologies.[22] The number of low carbon technologies that are available to customers is increasing and with it the number of different combinations of technologies that customers could adopt. The way to handle all combinations of technologies a customer may adopt in a manner that promotes the conservation of energy and infrastructure and encourages economically efficient decisions is through accurate and unbundled prices. Any subsidies deemed necessary to promote California policy should be provided directly and transparently.

E. Rule 15 and Rule 16

PG&E, ORA, and TURN offered comments regarding Rules 15 and 16; some specifically asking that these Rules be examined in this rulemaking.[23] Under an interim policy adopted in D.11-07-029, and extended in D.13-06-014, the Commission is still evaluating costs under the normal application of Rules 15 and 16. In D.13-06-014, the utilities were directed to perform load research and track distribution upgrades cost through 2015.[24] The Commission found that the additional load research is justified to inform policy related to distribution upgrade costs.[25] SDG&E recommends that any discussions regarding Rules 15 and 16 be deferred until data gathering is complete and the impacts of this interim policy are fully evaluated.

III. CONCLUSION

SDG&E respectfully submits this Reply for the Commission's consideration and looks forward to further dialogue with the Commission and stakeholders.

[22] ORA Comments, at pp. 7-10; IREC Comments, at pp. 4-5.
[23] PG&E Comments, at p.9; ORA Comments, at pp. 9-11, 14, 17); and TURN Comments, at pp. 3, 9.
[24] D.13-06-014, page 15.
[25] D.13-06-014, page 16.

Dated at San Diego, California, on this 20th day of December, 2013.

Respectfully submitted,

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