

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

Order Instituting Rulemaking to Continue  
the Development of Rates and  
Infrastructure for Vehicle Electrification.

Rulemaking 18-12-006  
(Filed December 13, 2018)

**REPLY COMMENTS OF THE VEHICLE-GRID INTEGRATION COUNCIL ON THE  
TRANSPORTATION ELECTRIFICATION FRAMEWORK (SECTIONS 9, 10, AND 12)**

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TRANSPORTATION ELECTRIFICATION FRAMEWORK (SECTIONS 9, 10, AND 12)**

In accordance with Rules of Practice and Procedure of the California Public Utilities Commission (“Commission”), the Vehicle-Grid Integration Council<sup>1</sup> (“VGIC”) hereby submits these reply comments to the *Administrative Law Judge’s Ruling Adding Staff Proposal for a Draft Transportation Electrification Framework to the Record and Inviting Party Comments* (“Ruling”) issued by Administrative Law Judge (“ALJ”) Patrick Doherty on February 3, 2020. Pursuant to *Email Ruling Resetting Procedural Schedule for Comments on Transportation Electrification Framework Sections* issued by ALJ Sasha Goldberg on August 4, 2020, VGIC timely files these reply comments on Sections 9, 10, and 12 of the Draft Transportation Electrification Framework (“Draft TEF”) on September 25, 2020.

**I. INTRODUCTION.**

*A. Overview of VGIC*

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<sup>1</sup> VGIC member companies and supporters include American Honda Motor Co., Inc., Connect California LLC, Enel X North America, Inc., Fiat Chrysler Automobiles, Ford Motor Company, General Motors Company, Nissan North America, Inc., Nuvve Corporation, and Toyota Motor North America, Inc. The views expressed in these Comments are those of VGIC, and do not necessarily reflect the views of all of the individual VGIC member companies or supporters. (<https://www.vgicouncil.org/>).

VGIC is a 501(c)6 membership-based advocacy group committed to advancing the role of electric vehicles (“EVs”) and vehicle-grid integration (“VGI”) through policy development, education, outreach, and research. VGIC supports the transition to decarbonized transportation and electric sectors by ensuring the value from EV deployments and flexible EV charging and discharging is recognized and compensated in support of achieving a more reliable, affordable, and efficient electric grid.

## II. REPLY COMMENTS

### *A. High-Level Principles for EV Rates:*

In its opening comments Southern California Edison (“SCE”) proposes examples of high-level principles that should be applied to EV rates including:

1. “Sending price signals to efficiently utilize the grid and generation resources
2. Pricing EV rates to expand EV adoption into Disadvantaged Communities (“DACs”)
3. Continuing to recognize the importance of load management and its position at the top of the loading order”<sup>2</sup>

#### *VGIC Response:*

VGIC generally agrees with these high-level principles and would suggest a few minor modifications and/or interpretations of these. Regarding example principle #1 listed above, VGIC supports the increased optionality of more dynamic rates for both generation (i.e.

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<sup>2</sup> *Southern California Edison Company's (U 338-E) Opening Comments on Rates, Cost Recovery, Alternative Financing, Partnerships, and Emerging Trends (Sections 9, 10, and 12)* at 3. (Hereinafter, “Opening Comments of SCE”)

“efficiently utilize ... generation resources”) and distribution (i.e., “efficiently utilize the grid”) bill components, as is suggested by SCE. Additionally, VGIC recommends that vehicle-to-grid (“V2G”) behavior should be adequately incentivized to leverage EVs for on-peak energy, off-peak (including mid-day) charging, and ancillary services. Example principle #2 should seek to expand EV adoption *overall* and also further expand EV adoption into DACs. VGIC recommends that example principle #3, if adopted or incorporated in the Final TEF and, in turn, the IOUs’ EVREV plans, include specific reference to V2G (in addition to V1G) as a type of “load management” for the purpose of determining its position in the loading order.

Additionally, VGIC generally agrees with the principles cited in the Draft TEF,<sup>3</sup> and believes the final set of principles should also include the following:

- Promoting and rewarding “grid-friendly” charging behavior for specific and distinct use cases, including both residential and commercial EV applications.
- Providing adequate incentives to transform the market for VGI services so that EVs can be unlocked as a grid resource in the future.

### ***B. Procedural Considerations for EV Rates***

VGIC notes that all three major IOUs oppose the coordination of EV rate in TEPs through the proposed EVREV plan process, instead recommending rates be proposed and reviewed in GRC

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<sup>3</sup> Draft TEF at 99-101.

Phase 2 as the “primary venue.”<sup>4</sup> VGIC notes that SCE does suggest that “each IOU should be allowed to propose rate options as a component of their TE proposals, if appropriate.”<sup>5</sup>

*VGIC Response:*

Given the nascent state of the EV industry and VGI today relative to California’s new goal for 100% ZEV passenger car and truck sales by 2035,<sup>6</sup> VGIC believes that the TEPs should play a meaningful role in providing a comprehensive review and coordination of EV rates as a whole. This is necessary for several reasons: 1) it allows for better coordination of EV rate options and other VGI-related programs that are developed through the TEPs, 2) it helps to avoid ad-hoc development of EV rates through standalone applications or GRC cases. This is necessary to encourage more robust participation from global firms (e.g. automotive original equipment manufacturers or “OEMs”) that are unable to devote resources to many disparate rate proceedings within a single U.S. state. At a minimum, the TEPs should provide a venue for substantive policy guidance on EV rates, whereas specific details could be worked out in subsequent GRCs. In that spirit, VGIC believes the draft TEF EVREV concept is a more organized approach that improves upon the existing ad-hoc EV rate application process.

***C. Coordination with CEC***

In opening comments, SCE recommends the directives emerging from the TEF be well-coordinated with the California Energy Commission (“CEC”) Load Management docket.<sup>7</sup>

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<sup>4</sup> Opening Comments of SCE at 3, *Opening Comments of Pacific Gas and Electric Company (U 39 E) on Draft Transportation Electrification Framework Sections 9, 10 and 12* (hereinafter, “Opening Comments of PG&E”) at 2, and *San Diego Gas & Electric Company’s (U 902-E) Opening Comments on the Transportation Electrification Framework: Rates, Cost Recovery, Alternative Financing, Partnerships, and Emerging Trends (Sections 9, 10, and 12)* (hereinafter, “Opening Comments of SDG&E”) at 2.

<sup>5</sup> Opening Comments of SCE at 3.

<sup>6</sup> Executive Order N-79-20.

<sup>7</sup> Opening Comments of SCE at 7.

*VGIC Response:*

VGIC generally supports this coordination. However, coordination with CEC must not serve as a substitute or delay for IOUs proposing VGI rates and programs through their TEPs and, in the pre-TEP timeframe, through VGI Portfolios as discussed in previous VGIC comments.<sup>8</sup>

#### ***D. Customer Experience and Comprehension of EV Rates***

Several IOUs suggest that varying prices based on time of day may prove to be too confusing for EV drivers, with SCE's opening comments stating, "varying fueling prices based on time of day is counterintuitive for a driver."<sup>9</sup>

*VGIC Response:*

VGIC disagrees with the notion that prices varying by time of day are too confusing or counterintuitive for EV customers. Time of use rates are common not only in California, where they are becoming the default for all customers, but across the country and have not proven to be too confusing for customers. In fact, controlled studies have shown that TOU rates have been effective at leading to peak load reduction due to responsive customer behavior.<sup>10</sup> Additionally, dynamic rates also exist in California through the SDG&E PYD program, and could be made more widespread as an *option* (rather than a requirement) for larger groups of customers. In fact, multiple types (i.e., more than one option) of dynamic rates could be made available for

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<sup>8</sup> See, for example, Comments of VGIC on TEF Sections 6, 11.1, and 11.2.

<sup>9</sup> Opening Comments of SCE at 5.

<sup>10</sup> See, for example, U.S. Department of Energy Office of Electricity Delivery and Energy Reliability, *Final Report on Customer Acceptance, Retention and Response to Time-Based Rate from the Consumer Behavior Studies*, November 15, 2016.

[https://www.smartgrid.gov/files/documents/CBS\\_Final\\_Program\\_Impact\\_Report\\_20161107.pdf](https://www.smartgrid.gov/files/documents/CBS_Final_Program_Impact_Report_20161107.pdf) and Smart Electric Power Alliance, The Brattle Group, E4 the Future, and Enel X, *Residential Electric Vehicle Rates That Work: Attributes that Increase Enrollment*, November, 2019. <https://sepapower.org/resource/residential-electric-vehicle-time-varying-rates-that-work-attributes-that-increase-enrollment/>

customers to participate at varying levels of sophistication in if they choose to do so. VGIC notes that automotive OEMs and EV service providers (“EVSPs”) can manage charging in response to these rates “behind the scenes” in a manner such that customers would not be bothered with the intricacies of how the rate functions, while also realizing net value from taking service on a dynamic rate tariff owing to third-party providers’ management of the customer experience. Our member companies are well equipped to perform this function. As consumer-facing brands, OEMs and EVSPs have decades of expertise in customer communications borne out of necessity due to the highly competitive nature of the automotive business. Given the opportunity, OEMs and EVSPs will be successful in communicating the information necessary for customers to participate in any dynamic rate scheme, no matter how complex it may initially appear.

#### ***E. Timing of EV Rate Implementation***

The Draft TEF proposed that dynamic rates be optional within five years and default for commercial customers within ten years. In opening comments, San Diego Gas and Electric (“SDG&E”) cautions that highly dynamic rates may not be appropriate as the default rate for commercial EV customers.<sup>11</sup> Similarly, Cal Advocates suggested that defaulting small commercial customers to dynamic rates could cause “customer confusion.”<sup>12</sup>

#### ***VGIC Response:***

VGIC disagrees with SDG&E’s perspective and believes that dynamic rates will not only stand to benefit commercial customers, but are appropriate to be considered as the default option ten years from now. VGIC notes that, as a general rule, dynamic rate options are best suited and can provide the most benefit for customer classes that are the most price sensitive. This includes

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<sup>11</sup> Opening Comments of SDG&E at 4.

<sup>12</sup> Opening Comments of Cal Advocates at 5.

commercial EV customers, which would have a strong interest in minimizing their charging costs. Moreover, VGIC believes that ten years is sufficient lead time for stakeholders to learn the benefits of deploying a dynamic rate for commercial EV customers. Over that time period, fleets and other commercial customers will be able to weigh the full costs and benefits of electrification, including the costs of charging on dynamic rates. Furthermore, there is no reason to presuppose that a static rate is any more “appropriate” for commercial EV customers than a dynamic one. In fact, it may be less appropriate since it gives customers fewer options for controlling their charging costs.

#### ***F. Alignment with non-rate approaches to grid-management***

In opening comments, Pacific Gas & Electric (“PG&E”) recommends:

“the CPUC should align rate design efforts with other non-rate grid management, including the myriad of existing and potential demand response (“DR”) programs and load management programs.”<sup>13</sup>

*VGIC Response:*

VGIC strongly supports this recommendation. Available EV rates, including those offering the greatest opportunity to align with grid conditions and reduce charging costs (e.g., PG&E EV-B<sup>14</sup>), may require customers to take service under a separate utility meter. However, for some VGI use cases, capturing additional value streams by participating in non-rate programs or market products such as DR rely on sharing a utility meter with on-site load. The misalignment between EV rate requirements and non-rate programs and market product structures is therefore a significant barrier to VGI market development and broader EV adoption. VGIC recommends

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<sup>13</sup> Opening Comments of PG&E at 6.

<sup>14</sup> PG&E Electric Schedule EV

[https://www.pge.com/tariffs/assets/pdf/tariffbook/ELEC\\_SCHEDS\\_EV%20\(Sch\).pdf](https://www.pge.com/tariffs/assets/pdf/tariffbook/ELEC_SCHEDS_EV%20(Sch).pdf)



that these onerous EV rate metering requirements be remedied in the near-term, and believes that this can be done through proven low-cost metering solutions embedded within the EV and/or EVSE, such as that which is presently being considered in the DRIVE OIR activity on submetering protocol development. The advancement of optional EV and/or EVSE metering strategies for all use cases where they are helpful should be accelerated to alleviate this threshold issue. Furthermore, existing DR programs are structured around load curtailment, which does not incentivize V2G solutions to provide capacity or other grid services. In opening comments, VGIC detailed new options for incentivizing V2G solutions to provide responsive and guaranteed capacity.<sup>15</sup> This approach can provide day-to-day grid value in addition to fitting EVs into existing DR constructs. In light of California’s urgent need for Resource Adequacy (“RA”) resources, VGIC recommends the Commission explore pathways to promote V2G strategies such as those previously introduced by VGIC in the instant proceeding.

### ***G. Role of CCAs***

SCE’s comments suggest that R.13-11-007 already determined CCAs are ineligible to receive ratepayer funds for TE programs. In contrast, the CCAs offer a framework for delineating the roles and responsibilities for both CCAs and IOUs to administer a portion of funds collected to support TE programs.

#### *VGIC Response:*

VGIC is generally supportive of whatever TE approach is best suited to accelerating EV adoption and in turn VGI. To that end, VGIC believes there are certain areas of TE implementation that CCAs are better equipped to deliver than IOUs due to their specific local

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<sup>15</sup> *Comments of the Vehicle-Grid Integration Council on the Transportation Electrification Framework (Section 9, 10, and 12)* at 12-19. Hereinafter, “Opening Comments of VGIC”.

knowledge. Likewise, IOUs may be better equipped in some areas that require a more broad-based approach. As such, VGIC is supportive of the concept of CCAs acting as program administrators for a subset of TE program areas, provided that:

1. Allowing CCAs to act in this capacity does not delay or diminish progress towards overall TE goals and objectives.
2. There is general agreement among stakeholders on which roles are more suitable for CCAs to take on, and a delineation of these roles between CCAs and their IOU counterparts.

Some of the areas that appear to be well suited for CCA implementation include (but are not limited to): fleets for municipal and localized commercial activities (e.g. ports), Active Load Management schemes that require coordination with local jurisdictions on electrical safety codes, and incentives for VGI that require alignment with CCA generation rates.

#### ***H. Reply to General Comments of Cal Advocates on Section 9.1***

In their Opening Comments, Cal Advocates identifies three important rate design policies in the Draft TEF, including the following two:

- Mitigate the economic impact of demand charges in new rates while still reflecting cost-causation principles.
- Use the appropriate rates, subsidies, and/or customer bill credits to offset the cost of public charging for customers who do not have access to low residential off-peak charging rates.

VGIC generally agrees with Cal Advocates comments on these issues. With regard to mitigating the impact of demand charges while still reflecting cost-causation, VGIC notes that its Opening Comments offered some potential approaches that may help to accomplish this, including a more

dynamic demand charge approach.<sup>16</sup> With regard to the use of rates, subsidies, and/or customer bill credits, VGIC agrees that all of these mechanisms should be considered as helpful tools for achieving desired public policy goals such as expanding access to affordable EV charging rate for low- and moderate income MUD residents. VGIC further notes that there may be other laudable policy goals that warrant the use of rates, subsidies, and/or customer bill credits. For example, VGIC's Opening Comments recommended the use of a bill credit mechanism as a means to help transform the market for emerging V2G technologies, which stand to provide long-term dividends to all ratepayers by reducing the costs to operate the grid.<sup>17</sup>

## V. CONCLUSION.

VGIC appreciates the opportunity to submit these reply comments on Rates, Partnerships, and Emerging Technology sections of the Draft TEF. We look forward to further collaboration with the Commission and stakeholders on this initiative.

Respectfully submitted,



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<sup>16</sup> Opening Comments of VGIC at 8-11.

<sup>17</sup> Opening Comments of VGIC at 12-18.