

April 29, 2024

CPUC Energy Division Tariff Unit
505 Van Ness Avenue
San Francisco, California 94102
EDTariffUnit@cpuc.ca.gov

Re: Response of the Vehicle-Grid Integration Council to Advice Letter 5271-E of Southern California Edison

Dear Sir or Madam:

Pursuant to the provisions of General Order 96-B, the Vehicle-Grid Integration Council (“VGIC”) hereby submits this response to the above-referenced Advice Letter 5271-E of Southern California Edison Company (“SCE”), *Request for an Exemption to Public Utilities Code Section 851 and Implementation Plan for Programs and Projects Funded with Low Carbon Fuel Standard Holdback Residential Base Charging Credit and Electric Forklift Credit Proceeds for 2024-2027* (“Advice Letter”), submitted on April 9, 2024.

I. INTRODUCTION.

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

II. DISCUSSION.

In reviewing the Advice Letter, VGIC recognizes the immense potential of LCFS Holdback Funds to maximize VGI and yield tangible benefits for ratepayers. VGI, as recognized in the Commission in Decision (“D.”) 20-12-029 and appearing in Public Utilities Code Section 740.16, offers critical advantages, including the following: “(A) Increasing electrical grid asset utilization and operational flexibility; (B) Avoiding otherwise necessary distribution infrastructure upgrades and supporting resiliency;... (D) Reducing the cost of electricity supply.”¹ These benefits are particularly relevant given California's current affordability crisis. VGI should be a foundational

¹ Public Utilities Code Section 740.16.

April 29, 2024
Page 2 of 5

component of California’s clean energy transition given the opportunity to significantly lower infrastructure investments and thereby lower system costs, rates, and, in turn, ratepayer’s monthly bills.

However, the nascent state of the VGI market, relative to technologies like smart thermostats or stationary energy storage with a history of programmatic cost-effectiveness testing, has made justifying ratepayer-funded VGI initiatives challenging. In fact, despite California’s substantial EV deployment from 2021 to today,² no new ratepayer-funded VGI programs have been authorized since then (i.e., Emergency Load Reduction Program – Group A.5).³ Notably, LCFS Holdback Funds offer a unique opportunity, distinct from ratepayer funds, to develop large-scale VGI utility programs vital to advancing the VGI market.

Therefore, VGIC strongly urges SCE and the Commission to capitalize on this opportunity by implementing large-scale LCFS-funded (i.e., non-ratepayer-funded) VGI programs with the express intent of yielding customer affordability benefits. One high-priority focus area should be programmatic approaches to managing the ~\$25 billion forecasted investment for distribution infrastructure upgrades needed by 2035, as detailed in the recent *Electrification Impact Study: Part I*⁴ conducted by Kevala and the Distribution Grid Electrification Model Study conducted by Cal Advocates.⁵ While it is possible that the marginal distribution pricing considered in R. 22-07-005 may help mitigate some share of these costs, VGIC advises against over-relying on a single solution.

SCE details in its Advice Letter that the relevant Commission guidance supports only a limited definition of VGI within the LCFS context. SCE also details that its previous LCFS-funded V2B project proposal was denied.⁶ While this proposal, as well as San Diego Gas & Electric’s withdrawn proposal to offer a V2B equipment rebate appear to fall well within the scope of resiliency applications as envisioned in the D.20-12-027, neither proceeded.

Moving forward, VGIC strongly urges the Commission and Energy Division staff to include the full range of VGI technologies, use cases, and approaches when considering LCFS-funded program proposals. This will allow real-world VGI benefits, namely the much-needed affordability benefits, to be realized and, ultimately, achieve meaningful scale.

² *California EV Sales Have Skyrocketed in the Last Decade*. Office of Governor Gavin Newsom. February 22, 2024. <https://www.gov.ca.gov/2024/02/22/california-zev-sales-have-skyrocketed-more-than-1000-in-the-last-decade/>

³ D.21-11-015. *Phase 2 Decision Directing PG&E, SCE, and SDG&E to Take Actions to Prepare for Potential Extreme Weather in the Summers of 2022 and 2023*. Issued December 6, 2021. <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M428/K821/428821475.PDF>

⁴ *Electrification Impacts Study Part I: Bottom-Up Load Forecasting and System-Level Electrification Impacts Cost Estimates*. Kevala, Inc. R.21-06-017. May 9, 2023. <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M508/K423/508423247.PDF>

⁵ *Distribution Grid Electrification Model Findings*. The Public Advocates Office. Marh 28, 2024. <https://www.publicadvocates.cpuc.ca.gov/press-room/reports-and-analyses/distribution-grid-electrification-model-findings>

⁶ Resolution E-5236 OP 8 and 9.

Below, VGIC outlines one specific near-term recommendation to further support VGI program development.

A. VGIC respectfully requests that SCE submit a Supplemental Advice Letter to correct erroneous statements related to the state of the VGI market and relevant technologies.

SCE states that it “does not see a clear pathway for V2B projects in conjunction with current utility rules around TE interconnections for commercial customers projects.”⁷ SCE correctly notes that, despite Energy Division’s assertion⁸, the Charge Ready Transport represents a barrier to widespread V2B by isolating customers onto a separate service drop (i.e., away from the “building” in “vehicle-to-building”). VGIC has highlighted this tension on several occasions throughout R.18-12-006, and we reiterate our long-standing recommendation that make-ready tariffs (i.e., Rule 29 and Rule 45) and make-ready programs (e.g., Charge Ready Transport) be revised in a timely fashion to eliminate this barrier to V2B.

However, VGIC disagrees with SCE that there is no “clear pathway for V2B projects in conjunction with current utility rules around TE interconnections for commercial customer projects.” Notably, LCFS Holdback Funds offer *precisely* this clear pathway, as LCFS-funded initiatives can drive V2B site development separate and apart from ratepayer-funded make-ready tariffs and programs. SCE appears hesitant to propose funding for V2B efforts given it was denied funding for the Baldwin Park Unified School District project proposed in AL 4518-E-A. VGIC reiterates its above recommendation that the Commission and Energy Division staff should take a broad and constructive view regarding the types of VGI efforts that could be supported using LCFS funds. Moreover, VGIC does not believe this singular experience should be abstracted to a broader narrative depicting a lack of clarity around how to advance V2B within the current make-ready funding paradigm. In addition to the fact that the LCFS Holdback Funds offer this very path forward for V2B projects, it is worth noting the growing list of successful V2B projects installed or in the late stages of development throughout California and the US. These active V2B pilots and projects are currently generating substantial utility bill savings and revenue for customers through demand charge management/customer bill management, TOU arbitrage, and participation in demand response programs, on the order of thousands of dollars a year per charger. Examples include The Mobility House’s deployment in Oakland, California⁹ and Fermata Energy’s deployment in Denver, Colorado.¹⁰

⁷ Advice Letter at 14.

⁸ Resolution E-5236 at 24.

⁹ The Mobility House V2B Oakland Project. *First-of-its-kind vehicle-to-building resilience hub powered by transit buses.* October 11, 2022. <https://www.mobilityhouse.com/usa/en/our-company/newsroom/article/v2b-oakland>

¹⁰ Fermata Energy V2B System at The Alliance Center. *V2B Technology Coming to Downtown Denver.* Accessed April 26, 2024. <https://fermataenergy.com/article/vehicle-to-building-v2b-technology-coming-to-downtown-denver>

With this in mind, VGIC respectfully requests that SCE revise this statement in a Supplemental Advice Letter and any future filings related to VGI to more appropriately depict the VGI market and avoid prejudicial treatment and presumptive narratives about the scalability of the relatively nascent V2X market.

Along similar lines, SCE states that “V2B options may potentially exist in the residential EV market, however, scaling these types of programs today has technological and market challenges.”¹¹ While VGIC agrees that there are technological and market challenges, we reiterate our above recommendation that a single experience should not be used to define the broader narrative surrounding residential V2B applications. SCE notes that vehicles with bidirectional charging capabilities, such as the Ford F-150 Lightning, are not widely deployed due to costs and availability, citing an article from 2023 to demonstrate the high costs of deployment.¹² This same article details that about 10% of Ford F-150 Lightning customers – a nontrivial share of drivers – are opting for the Sunrun Home Integration System, which is the V2B backup equipment associated with the Ford F-150 Lightning. Moreover, Chevrolet, GMC, Kia, and Tesla currently offer or plan to offer V2B backup power configurations for residential settings. Several charger manufacturers are offering low-power DC bidirectional chargers for V2B applications at attractive pricing and other companies are pursuing V2X AC configurations that utilize an onboard inverter. As a result, residential V2B systems are steadily decreasing in cost and increasing in availability, and this evolving dynamic should be well understood and appropriately reflected by SCE.

In sum, VGIC respectfully requests that SCE replace the unsupported and prejudicial conclusions related to the overall state of the bidirectional charging market with a more accurate and up-to-date assessment.

III. CONCLUSION.

VGIC appreciates the opportunity to submit this response to SCE’s Advice Letter. We look forward to further collaboration with the Commission and stakeholders on this initiative.

Respectfully submitted,

/s/ Zach Woogen

Zach Woogen

Interim Executive Director

VEHICLE-GRID INTEGRATION COUNCIL

¹¹ SCE Advice Letter 5271-E, *Appendix A SCE’s 2024-2027 LCFS Holdback Implementation Plan Public Version*. April 9, 2024. Pg 14.

¹² *For Us, It’ll Cost \$18K to Power a House With Our Ford F-150 Lightning*. Christian Seabaugh, MotorTrend. January 27, 2023. <https://www.motortrend.com/reviews/2022-ford-f-150-lightning-yearlong-review-update-1-sunrun-backup-power/>.

April 29, 2024
Page 5 of 5

cc: Connor Flanigan, SCE (AdviceTariffManager@sce.com)
Adam Smith c/o Karyn Gansecki (Karyn.Gansecki@sce.com)
Service list R.18-12-006
Service list R.23-12-018