

February 22, 2022

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

Re: Protest of the Vehicle Grid Integration Council to Advice Letter 6485-E of Pacific Gas and Electric Company, Advice Letter 4708-E of Southern California Edison Company, and Advice Letter 3939-E of San Diego Gas and Electric Company

Dear Sir or Madam:

Pursuant to the provisions of General Order 96-B, the Vehicle Grid Integration Council (“VGIC”) hereby submits this Protest to the above-referenced Advice Letter 6485-E of Pacific Gas and Electric Company, (“PG&E”), Advice Letter 4708-E of Southern California Edison (“SCE”) Company, and Advice Letter 3939-E of San Diego Gas and Electric Company (“SDG&E”), *Emergency Load Reduction Program Pilot Terms and Conditions of Southern California Edison Company, Pacific Gas and Electric Company, and San Diego Gas & Electric Company in Compliance With Decisions 21-12-015 and 21-12-069* (“Joint Advice Letter”) submitted on January 31, 2022.

I. INTRODUCTION.

Decision (“D.”) 21-12-015 details several critical updates to the Emergency Load Reduction Program (“ELRP”) pilot, including expanding ELRP to include customer group A.5 for Electric Vehicle (“EV”)/Vehicle-Grid Integration (“VGI”) Aggregations. VGIC appreciates the Commission’s understanding of the need for a dedicated VGI Aggregation customer group and is hopeful that the ELRP can support meaningful EV contributions to Summer reliability. However, thoughtful implementation of the direction found in D.21-12-015 is necessary to ensure the EV/VGI Aggregation customer group can succeed within the ELRP and help meet the program’s goals.

In light of the imminent May 1, 2022 Group A.5 launch date, timely approval of the program’s implementation details, including VGIC’s recommendations provided herein, are especially critical to ensure aggregators and customers can support Summer 2022 reliability needs. As such,

VGIC highly recommends the Commission and Energy Division staff expedite the review and resolution process for the Joint Advice Letter.

In reviewing the Joint Advice Letter, VGIC believes each utility's proposed Terms and Conditions fail to comply fully with the Commission's direction in D.21-12-015 regarding the use of EVSE submetering to determine Incremental Load Reduction ("ILR") and settlement. Furthermore, the Joint Advice Letter includes guidance regarding the interconnection of Vehicle-to-Grid Direct Current ("V2G DC") that conflicts with the guidance found in D.21-12-015. In addition, given the extremely short implementation timeline ahead of May 2022, the Joint Advice Letters lack sufficient enrollment flexibility that is necessary to facilitate Summer 2022 program participation. VGIC thus submits this protest with these deficiencies in mind. However, we believe these deficiencies can be remedied through the following changes:

- EV supply equipment ("EVSE") submetering protocols should be specified in Group A.5's Terms and Conditions. This should include an option for EV-based measurement.
- The ability for V2G DC devices certified to UL 1741 – but not smart inverter supplements or functions – to continue to operate parallel to the grid after 2024 should be reflected in the Group A.5 Terms and Conditions.
- Group A.5 Terms and Conditions should include flexible enrollment and baselining to support meaningful aggregator and customer participation in Summer 2022.
- Additional clarity is needed in SCE's Terms and Conditions regarding baseline and settlement calculation for Group A.5.

II. EVSE SUBMETERING PROTOCOLS SHOULD BE SPECIFIED IN GROUP A.5'S TERMS AND CONDITIONS

VGIC reiterates its support for the use of EVSE submeters, and EV-based measurement (e.g., via telematics) to determine compensation for ILR. As the Commission clearly stated in D.21-12-015, "to determine compensation for Incremental Load Reduction, an EVSE meter, or EVSE sub-meter if the EVSE is taking service through the host site meter, may be used."¹ Despite this guidance, the Joint Advice Letter fails to propose a specific pathway to use EVSE submetering to determine ILR. Each utility's proposed Terms and Conditions therefore disregard the Commission guidance,

¹ D.21-12-015 at 41.

instead proposing that submetering may only be used once the CPUC has approved submetering protocols.² The Commission states in D.21-12-015 that “the EVSE sub-meter must meet applicable standards established by the Commission if and when adopted.”³ However, the Decision does not expressly prohibit the use of other EVSE sub-metering approaches – even if those are temporary in nature – prior to the adoption of a final submetering protocol by the Commission. We are disappointed that the utilities seemed to have misinterpreted this guidance as a requirement that *no* EVSE submetering be permitted *until* applicable standards are established by the Commission. Instead, we believe the Commission’s intent was to allow for a more flexible and permissive approach that would maximize participation and thus better support of California’s urgent reliability needs.

VGIC supports the Commission’s determination that applicable standards – once established by the Commission – should be met by EVSE submeters. However, we reiterate that the utilities also have a clear obligation pursuant to D.21-12-015 to offer EVSE submetering to ELRP group A.5 by the May 1, 2022 launch date, which may occur before the final standards are established by the Commission. As such, VGIC protests the Joint Advice Letter and strongly recommends the utilities expeditiously develop and file for approval an EVSE submetering pathway for Group A.5, including technical requirements and approaches for communicating EVSE submeter data to the utility for the purposes of baselining, ILR determination, and settlement. If an EVSE submetering protocol is not developed by this Summer, it is difficult to imagine how Group A.5 will see meaningful participation and be able to support reliability. This could put a significant amount of the 271 MW of VGI related resources at risk of not being able to participate in summer 2022.⁴

VGIC understands that there is a pending EV submetering protocol (“EVSMP”) in R.18-12-006, however it was developed for a different purpose, and we believe it may be inappropriate to use the EVSMP “as is” for all ELRP Group A.5 participants. For instance, the EVSMP was developed for use with residential customers, whereas ELRP Group A.5 is open to a broad set of both residential and non-residential customers. In addition, the utilities’ proposed EVSMP includes extremely high accuracy standards that exceed both the NIST Handbook and industry standards.⁵ The utilities state that a very high accuracy standard is necessary to support accurate customer

² Joint Advice Letter Attachment A at 15 (PG&E), Attachment D at 16 (SCE), and Attachment F at 10 (SDG&E).

³ D.21-12-015 at 41.

⁴ See *Opening Testimony of Ed Burgess on Behalf of the Vehicle Grid Integration Council* (September 1, 2021) in R.20-11-003 at 17.

⁵ See *Comments of Chargepoint, Inc. and Enel X North America, Inc. Regarding Final Proposed PEV Submetering Protocol* (January 11, 2021) in R.18-12-006. Page 2.

billing and utility cost recovery.⁶ However, in the case of ELRP, the submetering data would not be used for individual customer billing, but rather, it would be used to calculate an aggregator's total ILR across multiple EVSEs. Notably, ELRP Group A.5 is an out-of-market, optional emergency demand response pathway that uses an agreement between a utility and VGI aggregator to achieve load reductions in an aggregation of EV/VGI resources. VGIC does not believe that achieving the reliability goals of ELRP are aided by requiring such high accuracy standards that participation is thwarted (and therefore grid reliability is put at risk). A slightly lower standard of accuracy may be warranted in support of grid reliability.

Finally, the Joint Advice Letter mentions the election of submetering must apply to all sites within an aggregation, thereby precluding aggregations that contain a mix of EVSE meters and submeters.⁷ It is unclear to VGIC why this provision is needed, and the Joint Advice Letter provides no justification for this approach. The establishment of Group A.5 is intended to enable broad customer and technology eligibility for EV/VGI aggregations to support VGI market development. VGIC is concerned that this requirement may limit total load reduction capabilities of EV/VGI aggregations and be counterproductive to the underlying intent of D.21-12-015 in establishing A.5 to allow a broad aggregation of different EV customer types. As such, VGIC recommends the utilities specify how they will accommodate mixed aggregations of sub-metered and separately metered EVSE participants in Group A.5. VGIC notes that the Commission in D.20-12-029 authorized the utilities to request up to \$35 million in funds for VGI Pilots, yet only \$29 million in pilots were requested. We recommend any unused VGI Pilots funds be used to support the development of any necessary tools to facilitate mixed aggregations of sub-metered and separately metered EVSE participants.

III. THE GROUP A.5 SUB-METERING PROTOCOLS SHOULD INCLUDE AN OPTION FOR EV-BASED MEASUREMENTS.

In addition to the EVSE-based measurement options contemplated by the currently pending EVSMP, there is also the potential for direct EV-based measurements of ILR via telematics. VGIC believes this should also be considered and included as an option within the sub-metering protocol developed for Group A.5 participants. VGIC recognizes that this option may not have been previously contemplated as the EVSMP was being developed and therefore may raise new

⁶ See *Final Plug-In Electric Vehicle Submetering Protocol of Southern California Edison Company (U-338-E), Pacific Gas and Electric Company (U 39-E), and San Diego Gas & Electric Company (U 902-E)* (December 21, 2020) in R.18-12-006. Attachment A, Page 4.

⁷ Joint Advice Letter Attachment A at 15 (PG&E), Attachment D at 16 (SCE), and Attachment F at 10 (SDG&E).

questions or challenges. However, EV-based measurement options represent a technically viable pathway for determining ILR and should not be discounted as an option for EVs to participate in ELRP. EV-based measurement can capture load reductions for L1 charging, which – although typically occurring at a lower charging rate – could comprise a growing source of EV load in California, particularly for customer sites unable to install L2 or DCFC chargers due to technical or cost constraints. At a bare minimum, VGIC believes the Commission should direct the IOUs to develop this option in advance of the 2023 summer season if it cannot be accomplished for the 2022 season.

IV. THE GROUP A.5 TERMS AND CONDITIONS SHOULD REFLECT THE ABILITY FOR V2G DC DEVICES TO CONTINUE TO OPERATE IN PARALLEL TO THE GRID AFTER 2024, EVEN IF THEY ARE ONLY CERTIFIED TO UL 1741 (AND NOT CERTIFIED TO THE SMART INVERTER SUPPLEMENTS OR FUNCTIONS).

In recognition of a nascent market, the Commission adopted appropriate flexibility in D.21-12-015 to allow EVs to safely discharge to the grid. Specifically, Attachment 2 to D.21-12-015 states:

“Any DC V2G EVSE that has UL 1741 certification - but not UL 1741 SA certification, any subsequent UL 1741 supplement certification required in Rule 21, or Smart Inverter Working Group-recommended smart inverter functions - may interconnect initially for the purpose of participating in the ELRP, subject to all other Rule 21 interconnection requirements.”⁸

This provision is a critically important measure that supports the development of California’s V2G market and VGI goals pursuant to SB 676. However, in the Joint Advice Letter, PG&E and SDG&E both fail to comply with the Commission’s guidance, instead stating:

“All sites within the VGI aggregation have operational EVSE that has UL 1741 SA certification, any subsequent UL 1741 supplement certification as required in Rule 21 or Smart Inverter Working Group recommended smart inverter functions and satisfies all other Rule 21 interconnection requirements.”⁹

“Direct Current (DC) V2G EVSE that have UL 1741 certification, but not UL 1741 SA, may interconnect initially for the purposes of participating in the ELRP, subject to remaining Rule 21 interconnection requirements. PG&E/SDG&E reserves the right to terminate this exception after the 2024 ELRP season.”¹⁰

⁸ D.21-12-015 Attachment 2 at 6.

⁹ Joint Advice Letter Attachment A at 9 (PG&E) and Attachment F at 6 (SDG&E).

¹⁰ Joint Advice Letter Attachment A at 9, footnote 4 (PG&E) and Attachment F, footnote 1 (SDG&E).

There are several revisions the utilities should make to fully comply with D.21-12-015 and reduce confusion. First, requiring that all sites within the VGI aggregation must have operational EVSE that have UL 1741 certification violates previous Commission guidance on Rule 21 per D.20-09-035, which specifically states that only bidirectional EVSE are subject to the referenced UL 1741 safety standard.¹¹ Since Group A.5 aggregations may consist of “any combination of EVs and charging stations,” requiring that all sites within an aggregation, which may include sites with only one-way chargers, comply with the Rule 21 standard otherwise applicable only to bidirectional chargers conflicts with D.20-09-035. VGIC recommends PG&E and SDG&E specify that only bidirectional equipment within an aggregation be certified to the UL 1741 safety standard. In the case of unidirectional, charge-only V1G, the Commission found in D.20-09-035 that Rule 21 does not apply but Rules 2, 15, and 16 are applicable, and PG&E and SDG&E’s guidance should be revised to reflect this finding.¹²

Second, the text proposed in PG&E and SDG&E’s Terms and Conditions regarding UL 1741 is misleading. The third bullet in Attachment A Section 1.1.5 (PG&E) and fourth bullet in Attachment F Section A.5 (SDG&E) both state that EVSE must be certified to “UL 1741 SA and any subsequent UL 1741 supplement certification as required in Rule 21 or Smart Inverter Working Group recommended smart inverter function.” PG&E and SDG&E offer in footnotes that “DC V2G EVSE that have UL 1741 certification, but not UL 1741 SA, may interconnect initially for the purposes of participating in ELRP.” To reduce confusion, VGIC recommends that PG&E and SDG&E instead adopt the following language in Terms and Conditions for Group A.5, which states:

“Subject to all Rule 21 interconnection requirements, any direct current (DC) V2G electric vehicle supply equipment (EVSE) that has UL 1741 certification but not UL 1741 SA certification, any subsequent UL 1741 supplement certification required in Rule 21, or Smart Inverter Working Group-recommended smart inverter functions may interconnect.”¹³

Third, PG&E and SDG&E state in footnotes that the utilities “reserve the right to terminate this exception after the 2024 ELRP season.” This conflicts with D.21-12-015 Attachment 2 which states that utilities “may request termination of this interconnection pathway via Tier 2 AL after the 2023 ELRP season.” The plain language of the decision does not grant the utilities the right to unilaterally terminate this interconnection pathway in 2024, as such a termination would be subject to Commission review and approval.

Lastly, all three utilities state that UL 1741-certified V2G DC EVSE interconnecting without UL 1741 SA or other smart inverter supplements or functionalities may interconnect initially, but only

¹¹ D.20-09-035 Finding of Fact 191 at page 194. “Current Rules and practice confirm that, in the case of unidirectional charge-only V1G, Rule 21 does not apply but Rules 2, 15, and 16 are applicable.”

¹² *Ibid.*

¹³ Joint Advice Letter Attachment D at 9.

for the purposes of participating in the ELRP. VGIC believes this language is misleading since it omits a key provision of D.21-12-015 that would allow ELRP participants exercising this option to remain interconnected even if the option is terminated for subsequent participants:

“IOUs may request the termination of this interconnection pathway via Tier 2 AL after the 2024 ELRP season if the market has developed to provide multiple V2G capable EVSEs that meet the full smart inverter certification standards required in Rule 21. Termination of this pathway would not affect previously interconnected EVSE, and they may continue to operate parallel to the grid as per their Interconnection Agreement” (emphasis added) ¹⁴

To reduce confusion, VGIC strongly requests the utilities clarify and explicitly state in the Terms and Conditions for Group A.5 that, “future termination of this pathway would not affect previously interconnected EVSE, and that these devices may continue to operate parallel to the grid as per their Interconnection Agreement.”

V. GROUP A.5 TERMS AND CONDITIONS SHOULD INCLUDE FLEXIBLE ENROLLMENT AND BASELINING TO SUPPORT MEANINGFUL AGGREGATOR AND CUSTOMER PARTICIPATION IN SUMMER 2022.

Given the short timeline for implementation of ELRP Group A.5, VGIC offers three key measures to ensure adequate participation in Summer 2022. First, we strongly urge the Energy Division staff and Commission to expedite its review and resolution of the Joint Advice Letter and VGIC’s recommendations provided herein. Second, we recommend that the utilities allow for flexible enrollment beyond April 30, 2022. For example, A V2G DC system seeking interconnection once the ELRP V2G DC interconnection pathway is approved with resolution of the Joint Advice Letter may not receive permission to operate by April 30, 2022, but may still be able to meaningfully start support Summer reliability at a later date in the season (e.g. June or July). VGIC recommends the utilities allow for rolling enrollment throughout the summer and pro-rate the 30 hours minimum dispatch requirement accordingly. For example, in the case a VGI aggregator cannot enroll customers/an aggregation by the April 30, 2022 deadline, the aggregator should be permitted to enter into an agreement with the utility at some later point in the summer. If the aggregator enters into an agreement on July 31, for example, then the minimum dispatch requirement for the remainder of the 2022 season should only be 15 hours, rather than 30 hours. This flexibility is particularly important for V2G DC EVSE systems certified to UL 1741 – but not UL 1741 SA – which is expressly permitted in D.21-12-015. Despite this clear stated permission, the utilities are currently not allowing these types of systems to interconnect and are telling prospective participants that the interconnection pathway is not yet available because Joint Advice Letter has

¹⁴ D.21-12-015 Attachment 2 at 6.

not yet been approved. For these systems, either the interconnection process should be expedited to make up for time lost to the Joint Advice Letter resolution process, or flexible enrollment should apply to ensure that these systems can still participate in Summer 2022 despite interconnection delays.

Third, VGIC recommends the utilities detail how baselines will be determined for Group A.5 aggregations/customers that enroll, begin receiving utility service, and/or interconnect V2G systems within 10 days of a dispatch signal. VGIC recommends ILR in these cases be determined either by using the 10 days after the dispatch event or by allowing the aggregator to submit a counterfactual to the utility that would show what load would have looked like in the 10 days before the dispatch event.

Without incorporating enrollment and baseline flexibility into Group A.5, it is possible that VGI aggregators will be unable to enroll customers, complete aggregator agreements with utilities, and interconnect new systems in the less than three months between now and May 1, 2022, even though they might be able to provide meaningful load reduction in the latter part of the summer, when acute heat wave events may still occur. To ensure success of the program, flexible enrollment and baselining should be permitted for Summer 2022, and the merits of this approach should also be considered for Summer 2023 and beyond.

VI. ADDITIONAL CLARITY IS NEEDED IN SCE'S TERMS AND CONDITIONS REGARDING BASELINE AND SETTLEMENT CALCULATION FOR GROUP A.5.

In SCE's Terms and Conditions Section 3.2.1.6 *Baseline and Settlement Calculations for Sub-Group A.5*, SCE details the use of the "same baseline calculation as Sub-Group A.3 (see Section 3.2.1.4)." ¹⁵ The referenced Section 3.2.1.4 on Sub-Group A.3 states:

"A Rule 21 Exporting DER customer on a CPP or RTP equivalent tariff, the ELRP baseline is deemed to be zero and only exported energy is counted in ILR.

A Rule 21 Exporting DER customer not on a CPP or RTP equivalent tariff, the ELRP baseline for Sub-Group A.1. (see Section 3.2.1.2.) is applied and modified to account for exported energy during non-event days and exported energy is counted in ILR."¹⁶

It is unclear whether SCE intends to apply the Group A.3 baseline and settlement methodology only to V2G resources that are exporting or also for V1G resources. In other words, by referring

¹⁵ Joint Advice Letter Attachment D at 16.

¹⁶ Joint Advice Letter Attachment D at 15.

to Group A.3: Rule 21 Exporting DERs, SCE points to applicable rules for Rule 21 Exporting DERs, which could apply to V2G customers that are also Rule 21 exporting DERs, but leaves open a gap in explaining how V1G customers' Incremental Load Reductions will be treated. VGIC recommends SCE clarify the baseline and settlement calculation for VGI aggregations such that both V1G and V2G aggregations, or a mixed aggregation of V1G and V2G resources, can understand the applicable methodology.

In addition, it is unclear whether SCE is proposing to treat V2G exporting customers on a CPP or RTP equivalent tariff as having a baseline of zero. VGIC does not recommend this approach, as ILR achieved from the CPP or RTP rates should be incentivized and compensated under ELRP. As such, VGIC recommends SCE specify that VGI Aggregator customers will be compensated for any ILR achieved below baseline, whether on CPP, RTP, or an otherwise applicable tariff – and whether achieving ILR through V1G, V2G, or a combination of both.

VII. CONCLUSION.

VGIC appreciates the opportunity to submit this Protest to the Joint Advice Letter. We look forward to collaborating with stakeholders on this important initiative.

Respectfully submitted,

/s/ Ed Burgess

Ed Burgess
Senior Policy Director
Vehicle Grid Integration Council

cc: Sidney Bob Dietz II c/o Megan Lawson, PG&E (PGETariffs@pge.com)
Shinjini C. Menon, SCE (AdviceTariffManager@sce.com)
Tara S. Kaushik c/o Karyn Gansecki, SCE (Karyn.Gansecki@sce.com)
Greg Anderson, SDG&E (GAnderson@sdge.com, SDGETariffs@sdge.com)
Service list of R.20-11-003