

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

Application of San Diego Gas & Electric
Company (U902E) for Approval of Real Time
Pricing Pilot Rate.

Application No. 21-12-006
(Filed December 13, 2021)

Application of San Diego Gas & Electric
Company (U902E) for Approval of Commercial
Electric Vehicle Dynamic Rate.

Application No. 21-12-008
(Filed December 17, 2021)

OPENING BRIEF OF THE VEHICLE GRID INTEGRATION COUNCIL

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In accordance with the Rules of Practice and Procedure of the California Public Utilities Commission (“Commission”) the Vehicle-Grid Integration Council (“VGIC”) hereby submits this opening brief in the consolidated *Application of San Diego Gas & Electric Company* (“SDG&E”) for Approval of Real Time Pricing Pilot Rate (“Application”), pursuant to the *Procedural Email Granting Extension Request for Briefs* issued by Administrative Law Judge (“ALJ”) Stephanie Wang on May 16, 2023.

I. INTRODUCTION.

VGIC’s participation in this consolidated proceeding is focused primarily on why and how the Commission should direct SDG&E to modify their proposed dynamic rate pilots to ensure the rate pilots adequately support participating customers, benefit non-participating ratepayers, and yield meaningful lessons learned to inform the long-term development of dynamic pricing in California. Specifically, VGIC aims to promote an export rate pilot for non-Net Energy Metering

(“NEM”) distributed energy resources (“DERs”), including bidirectional vehicle-to-everything (“V2X”) and storage-backed electric vehicle (“EV”) charging sites, that sufficiently attracts customer participation. VGIC believes a successful export rate pilot would compensate customers for the full value they provide to the grid. The record in this proceeding viewed as a whole, including VGIC’s prepared written testimony, together with prepared written testimony submitted by others, including Environmental Defense Fund (“EDF”),¹ makes an unassailable case for the Commission to direct SDG&E to modify their proposed export compensation pilot to ensure it adequately compels customer participation, namely through the addition of a dynamic distribution rate component.

The *Advanced Strategies for Demand Flexibility Management and Customer DER Compensation* whitepaper (“Demand Flex Whitepaper”), which Energy Division staff and interested parties are working diligently to implement in Rulemaking (“R.”) 22-07-005 (“Demand Flex OIR”) and the Demand Flex Working Groups, establishes a robust framework for export rate design. Critically, the Demand Flex Whitepaper asserts that export pricing will support the large-scale participation of flexible exports. Furthermore, the Energy Division Recommendations to SDG&E to modify its proposed export rate issued on June 15, 2022 (“June 15, 2022, Energy Division Recommendations”), unmistakably guides SDG&E toward proposing an export compensation rate pilot that better aligns with the framework established in the Demand Flex Whitepaper.² Although the intent of these recommendations was to nudge SDG&E’s application toward the Demand Flex Whitepaper framework, SDG&E’s subsequent supplemental testimony proposes a limited export compensation pilot that implements the minimum required dynamic rate

¹ EDF-02. *Rebuttal Testimony of Steven Moss on Behalf of Environmental Defense Fund*, submitted on January 30, 2023, p. 2.

² *Administrative Law Judge’s Ruling Regarding Staff Recommendations and Workshop*, issued June 15, 2022, Attachment A – Energy Staff Recommendations.

components and, critically, lacks a dynamic distribution component. It is clear, however, that the overarching public policies involved dictate a pressing need for a more complete dynamic export compensation rate that is integrated with the many forward-looking elements of California's energy policy. In VGIC's view, the Commission should therefore order SDG&E to implement a modified export compensation pilot as detailed below in our responses to the questions circulated in *Procedural email with instructions for opening briefs*, issued April 6, 2023, by ALJ Wang ("April 6, 2023 Procedural Email"). The framework developed in the Demand Flex Whitepaper, together with the record in this proceeding, supports an export compensation pilot that incorporates not only marginal energy credits and marginal generation capacity credits but also a dynamic distribution component to credit customers for exports that avoid distribution capacity costs.

The proposed export compensation rate must be evaluated in the context of California's urgent need for distributed energy storage resources, of which V2X and storage-backed EV charging resources are strategically vital components.³ Moreover, it is not a sound public policy for the Commission to repeatedly urge SDG&E to offer innovative dynamic rate designs, as it has done in the EV-HP Decision ("D.") 20-12-023,⁴ June 15, 2022, Energy Division Recommendations, and Demand Flex Whitepaper, only to allow SDG&E to defer implementation of these solutions continually. Allowing SDG&E to defer implementation of dynamic rate designs, including compelling export rate offerings, downplays the value of dynamic rate design implementation, including its efficiency, reliability, peak load reduction, and renewable energy integration benefits. The continued delay also undercuts broader effort to promote customer solutions that can maximize load reduction and export, including V2X and storage-backed

³ Senate Bill 676. Bradford, 2019. Section 1.

⁴ D.20-12-023, *Decision Authorizing San Diego Gas & Electric Company Rate for Electric Vehicle High Power Charging*, issued December 21, 2020, Ordering Paragraph 9, p. 38.

charging. As more fully discussed in this opening brief, the Commission cannot afford to miss the one-time opportunity presented by this proceeding – at this time – to move SDG&E in the right direction regarding dynamic rate design and, in particular, export compensation for non-NEM customers.

California’s policy regarding export compensation for non-NEM resources has changed dramatically since SDG&E filed its original export compensation Application on December 17, 2021. Most prominently, the Commission opened R.22-07-005 (“Demand Flexibility OIR”) in July 2022 in recognition of the following factors facing the state: severe weather events, affordability, the environmental and social justice action plan, SB 100 goals for renewable generation, SB 350 greenhouse gas reduction goals as they relate to transportation electrification, SB 1477 and AB 3232 building decarbonization goals, the increased penetration of DERs, outdated rate design principles, and the California Energy Commission’s (“CEC”) proposal to establish load management standards.⁵ In the face of these various constraints and mandates, Vehicle-Grid Integration (“VGI”) solutions, including V2X and storage-backed charging offerings, represent a critical set of tools in the toolkit to implement the vision detailed in the Demand Flex Whitepaper and subsequently discussed in the Demand Flex OIR. While export compensation will remain important in that proceeding as it unfolds over the next few years, there is an immediate opportunity within the scope of this Application as it relates to SDG&E’s proposed export compensation rate pilot that, if appropriately modified and implemented, would make significant advances in support of the long-term vision detailed in the Demand Flexibility OIR.

⁵ R.22-07-005. *Order Instituting Rulemaking to Advance Demand Flexibility Through Electric Rates*, issued July 22, 2022, pg. 2-5.

II. SDG&E’S PROPOSED EXPORT RATE PILOT WILL NOT YIELD ADEQUATE CUSTOMER PARTICIPATION WITHOUT EXPORT RATE DESIGN THAT INCLUDES A DYNAMIC DISTRIBUTION COMPONENT.

A. The proposed export rate design offers limited energy arbitrage and critical peak pricing (“CPP”) revenue opportunity relative to customer participation costs.

To attract customers, the export rate design must offer a level of financial opportunity that makes participation a worthwhile endeavor for customers. EV High Power (“EV-HP”) customers using V2X charging equipment or storage-backed EV supply equipment (“EVSE”) that participate in the export compensation rate pilot will incur upfront costs associated with installing export-capable equipment,⁶ monthly EV-HP subscription costs for demand, and time-of-use (“TOU”) charging costs (presumably, mostly off-peak).⁷ Meanwhile, the potential revenues of participating in the export rate pilot, as proposed by SDG&E, are based on two components: a marginal energy component based on CAISO Day-Ahead Market (“DAM”) prices and a marginal generation capacity component (“MGCC” – also referred to in this proceeding as a Peak Energy Payment [“PEP”] or Critical Peak Pricing [“CPP”] credit).⁸

VGIC believes effective export compensation mechanisms, meaning those that enable participating customers to capture benefits while also supporting the grid, include energy arbitrage opportunities.⁹ In the case of SDG&E’s proposed export compensation pilot, EV-HP summer off-peak charging costs are a static \$0.08/kWh, regardless of system conditions, while CAISO Day-

⁶ VGIC-01. *Opening Testimony of Ed Burgess on Behalf of the Vehicle-Grid Integration Council*, served December 30, 2022, pg. 24.

⁷ VGIC-02. *Rebuttal Testimony of Ed Burgess on Behalf of the Vehicle-Grid Integration Council*, served January 30, 2023, pg. 4.

⁸ *Ibid.*

⁹ As opposed *rate* arbitrage between different rate schedules, which is inappropriate, as highlighted by Cal Advocates in Cal Advocates-01, *Prepared Testimony of Thomas Brawley (Chapter 2)*, served December 30, 2022, pg. 2-5 and discussed further by VGIC in VGIC-02, *Rebuttal Testimony of Ed Burgess on Behalf of the Vehicle-Grid Integration Council*, served January 30, 2023, pg. 3.

Ahead Market (“DAM”) prices in summer range from \$0.04 to \$0.12/kWh.¹⁰ With these energy values, there may be some hours that the CAISO DAM prices are higher than charging costs, although it is likely infrequent. As a result, the energy arbitrage opportunity is significantly limited.

As for the MGCC/CPP export credit, SDG&E supports a proposal from Cal Advocates to ensure the CPP component is based on the recovery of only marginal generation capacity costs, which results in a \$0.98163/kWh CPP for Medium / Large Commercial customers as detailed in SDG&E rebuttal testimony.¹¹ SDG&E also proposes to apply this CPP component during a maximum of 18 hours per year,¹² while Cal Advocates proposes to modify SDG&E’s CPP by creating an event threshold based on an average of 150 CPP hours called per year using CAISO net load.¹³ VGIC believes that both of Cal Advocates’ proposals (i.e., recovering only marginal generation capacity costs and spreading these costs over an average 150 hours per year rather than a maximum of 18 hours per year) are reasonable, as detailed below in Section III. However, if both of Cal Advocates’ proposals are adopted, the non-energy-arbitrage revenue opportunity (i.e., the MGCC/CPP credit revenue opportunity) available to participating exporting customers will be significantly limited.

Taken together, these limitations on energy arbitrage opportunity and CPP export revenue indicate there will be very few days where participation in the export compensation pilot is economically viable for customers. Considering also the significant upfront equipment and installation investments required to enable these use cases and the non-volumetric bill charges

¹⁰ VGIC-02, *Rebuttal Testimony of Ed Burgess on Behalf of the Vehicle-Grid Integration Council*, served January 30, 2023, pg. 5.

¹¹ SDGE-10, *Prepared Rebuttal Testimony of William G. Saxe (Chapter 3) on Behalf of San Diego Gas & Electric Company*, served January 30, 2023, Attachment A.

¹² SDGE-03, *Prepared Supplemental Testimony of William G. Saxe (Chapter 3) on Behalf of San Diego Gas & Electric Company*, served August 15, 2022, WS-5.

¹³ Cal Advocates-01, *Prepared Testimony of Vanessa Martinez (Chapter 1)*, served December 30, 2022, pg. 1-5.

associated with EV charging (i.e., EV-HP subscription charges), the underlying economics of the proposed rate makes participation entirely unattractive to eligible customers. VGIC believes that SDG&E's proposed export rate design – modified with Cal Advocate's reasonable CPP methodology revisions – is insufficient to yield customer participation in the pilot.

B. The record supports adding a dynamic distribution component to the export pilot and offers several pathways to do so.

Despite the challenging economics of the proposed rate, V2X and storage-backed charging export remain compelling value propositions for customers and solution providers if exports are compensated commensurate with the value they provide to the grid. To that end, several parties align on the need for a dynamic distribution component related to distribution capacity costs.¹⁴ Notably, this is a critical component of the broader Demand Flex Whitepaper and OIR, and, if designed and implemented properly, can overcome the fundamental shortcoming of the proposed export pilot rate noted above. In response to party alignment on the need for a dynamic distribution component, SDG&E proposes in rebuttal testimony to “consider a distribution RTP rate component for its Stage 2 RTP pilot” and “hold at least one workshop prior to the Stage 2 RTP Pilot being filed to discuss Stage 2 rate design, including the inclusion of a distribution RTP rate component.”¹⁵ Deferring a dynamic distribution component to a later date, rather than implementing it through the proposed export rate pilot, would represent a significant missed opportunity to support participating customers, non-participating ratepayers, and yield lessons learned for broader Demand Flex Whitepaper and OIR framework goals. Moreover, as noted above

¹⁴ Cal Advocates Prepared Testimony of Vanessa Martinez (Chapter 1) at 1-24; VGIC Opening Testimony of Ed Burgess at 28; EDF Opening Testimony of Steven Moss at 8-10.

¹⁵ SDGE-10, *Prepared Rebuttal Testimony of William G. Saxe (Chapter 3) on Behalf of San Diego Gas & Electric Company*, served January 30, 2023, pg. WGS-12.

in Section I, further delaying dynamic rate components would send a mixed signal to SDG&E and all stakeholders over California's commitment to its dynamic rate design vision.

Several reasonable pathways toward implementing a dynamic distribution component in the export rate pilot have been raised in the record of this proceeding, including the following:

- Leveraging SDG&E's existing Schedule VGI D-CPP component of \$0.79594/kWh. In Schedule VGI, the D-CPP adder reflects the cost of additional EV load on specific distribution circuits during 200 peak hours. Conversely, this cost would be avoided if EV customers exported to those circuits during D-CPP event hours.¹⁶
- Leveraging the approach first used by Pacific Gas and Electric Company ("PG&E") in the Dynamic Rate Pilot for Agricultural Pumping authorized in D.21-12-015 and developed further for PG&E's VGI Pilot Rate Design, as directed by Resolution E-5192 and proposed in PG&E Advice Letter ("AL") 6694-E. This methodology clusters groups of circuits based on overall load characteristics, such as the timing of peak vs off-peak loads and ramp periods. Even where load magnitude or location differs across circuits, this methodology enables a drastically reduced load forecasting effort for SDG&E, as opposed to modeling every individual circuit that contains a participating customer.¹⁷
- Offering customers a straightforward, sector-specific price signal representing "a locationally variegated, dynamic generation export rate to encourage carriers/shippers to sync charging with time- and location-variant grid conditions and leverage the smart charging potential and short-term needs of MHDV fleets," as proposed by EDF.¹⁸

With this in mind, the ingredients needed to design and implement a dynamic distribution component for the proposed export compensation rate pilot are present and need only be unlocked through Commission direction to SDG&E. Specifically, merging SDG&E's \$0.79594/kWh D-

¹⁶ VGIC-02, *VGIC Data Request #1, SDG&E Real Time Pricing Pilot – A.21-12-006; A.21-12-008, SDG&E Response, received March 14, 2023, pg. 3. See also, VGIC-02, Rebuttal Testimony of Ed Burgess on Behalf of the Vehicle-Grid Integration Council, served January 30, 2023, pg. 8.*

¹⁷ VGIC-01. *Opening Testimony of Ed Burgess on Behalf of the Vehicle-Grid Integration Council, served December 30, 2022, pg. 28.*

¹⁸ EDF-02. *Opening Testimony of Steven Moss on Behalf of Environmental Defense Fund, submitted on January 30, 2023, p. 8.*

CPP adder from its Schedule VGI rate with PG&E's circuit clustering methodology results in a dynamic distribution export component that is compelling to customers, helps offset distribution costs, and is easier to implement for SDG&E than the current circuit-by-circuit modeling performed for Schedule VGI.

III. RESPONSES TO QUESTIONS IN PROCEDURAL EMAIL ISSUED APRIL 6, 2023 BY ALJ WANG

A. Should the export rate pilot be conducted as a one-stage pilot instead of as proposed (two-stage pilot)? If so:

- **Should pilot eligibility be expanded to all customers or only customers on a few import rates commonly used by customers that are more likely to participate in the pilot (e.g. EV charging or storage customers)?**
- **Should there be a cap on the number of customers that may participate in the export rate pilot?**
- **Should the pilot duration be modified?**

VGIC does not offer a response to this question at this time but may respond to party comments on this topic in its reply brief.

B. Should the export rate include a capacity price component like a CPP adder? If so, how the should the CPP adder be designed? When and how frequently should CPP events be called?

Yes. A capacity price component is a critical element of effective export rate design. As detailed above in Section II, SDG&E proposes a CPP export credit of \$0.98163/kWh for Medium / Large Commercial customers based on marginal generation capacity costs.¹⁹ SDG&E proposes to apply this CPP during a maximum of 18 hours per year,²⁰ while Cal Advocates proposes an

¹⁹ SDGE-10, *Prepared Rebuttal Testimony of William G. Saxe (Chapter 3) on Behalf of San Diego Gas & Electric Company*, served January 30, 2023, Attachment A.

²⁰ SDGE-03, *Prepared Supplemental Testimony of William G. Saxe (Chapter 3) on Behalf of San Diego Gas & Electric Company*, served August 15, 2022, WS-5.

average of 150 CPP hours per year.²¹ VGIC agrees that this rate component at this time should be based only on marginal costs, and believes Cal Advocate’s proposal to offer the CPP credit during an average of 150 hours per year is reasonable. This provides a price signal to elicit exports during peak hours throughout the year but is not focused narrowly on the most extreme grid reliability conditions. In contrast, the Emergency Load Reduction Program (“ELRP”), already provides an option for customers who would prefer to export during fewer peak hours (i.e., 30 hours for VGI resources).

By offering an average of 150 hours per year of CPP signals, SDG&E would be working toward establishing a “menu” of options for interested customers to choose from. This is appropriate given EV charging use cases' incredibly varied and diverse nature, as illustrated by the 2019-2020 Joint Agency VGI Working Group, which detailed over 300 near-term, high-value use cases for vehicle interaction with the electric grid.²² At these relatively early stages in the V2X and storage-backed charging markets, maximizing customer choice for engaging in export opportunities is critical to early adopter success and, in turn, broader market transition efforts. For many customers, year-round export opportunities with 150 CPP hours may make the most sense for their vehicle duty cycle. Meanwhile, other customers may only be able to export if the entire export signal is condensed into 30 especially high-value hours (i.e., as is the case in ELRP). In terms of system efficiency and optimization, VGIC believes that year-round, hourly price or control signals for both charging and discharging provide the most opportunity to support both customer value and system costs and, therefore, should be the long-term goal and trend of any program or policy.

²¹ Cal Advocates-01, *Prepared Testimony of Vanessa Martinez (Chapter 1)*, served December 30, 2022, pg. 1-5.

²² R.18-12-006. *E-Mail Ruling Seeking Party Comment on Vehicle-Grid Integration Issues*, issued July 20, 2020, Attachment A, *Final Report of the California Joint Agencies Vehicle-Grid Integration Working Group*.

C. Should the export rate pilot include a dynamic distribution component?

Yes. The export rate pilot should include a dynamic distribution component, as detailed above in Section II. VGIC believes it would be a prudent policy decision to allow SDG&E to offer a dynamic export rate that incorporates a dynamic distribution component for three reasons: (1) to support project economics so that customers enroll in the rate, in turn ensuring pilot costs do not unduly burden ratepayers, (2) to yield net ratepayer benefits by reducing local distribution capacity needs, and (3) to uncover key lessons learned that will inform California's dynamic import/export rate future.

1. First, as detailed in Section II above, without a dynamic distribution component, the rate will not be compelling enough to attract customer participation. Without this distribution component, participants will struggle to recover their charging costs and the upfront costs of purchasing, installing, and interconnecting eligible export-capable equipment.²³ Ensuring the pilot administration budget yields ample customer participation (i.e., ensuring the pilot includes a dynamic distribution export component) will be critical to protecting ratepayers from an undue burden.
2. Second, the dynamic export compensation component will deliver tangible benefits to the grid by reducing local distribution capacity needs in the converse manner that distribution adders like SDG&E's Schedule VGI D-CPP component recover distribution capacity costs. Marginal energy export components incentivize exports during times with high wholesale market energy prices, and CPP/MGCC credits align exports with times of high generation capacity constraints. However, the dynamic distribution component is also

²³ VGIC-01. *Opening Testimony of Ed Burgess on Behalf of the Vehicle-Grid Integration Council*, served December 30, 2022, pg. 24.

needed to align exports with periods of constraint on the local distribution system. To the extent that SDG&E's distribution grid is being placed under increasing strain from increased building and transportation electrification efforts, a dynamic distribution component would provide capacity relief for these stressed locations and, in turn, yield benefits for ratepayers in the form of avoided distribution capacity costs.

3. As detailed in Section I above, the Demand Flex Whitepaper and OIR expressly envision a dynamic distribution component, and, as noted in Section II above, ongoing V2X and rate design pilots are implementing this in other parts of California. With this innovative vision for widespread dynamic import and export rate options for customers set as a desired outcome, it's critical that the Commission ensure SDG&E's pilot yields lessons learned on the implementation of this rate component. These lessons will include technical implementation challenges, opportunities for more cost-efficient rate administration, customer marketing, education, and outreach best practices, and environmental, affordability, and reliability benefits of dynamic rate design.

D. Should the cost of the export rate be recovered through distribution rate (i.e. from all customers, bundled and un-bundled)?

VGIC does not offer a response to this question at this time but may respond to party comments on this topic in its reply brief.

E. How should the export rate be evaluated? What should be the metrics for pilot evaluation? Should the Commission require an analysis of whether the export rate shifts costs to non-participants?

At a minimum, as proposed by EDF, SDG&E's evaluation should be included in the annual reporting requirements imposed by D.20-12-029 ("VGI Strategies and SB 676 Implementation

Decision”).²⁴ As SDG&E’s proposed measurement and evaluation (“M&E”) plan focuses largely on the originally-proposed import rate design submitted in A.21-12-006, there is a limited record regarding M&E for the export pilot in isolation. However, as a general best practice, VGIC recommends that M&E for the export rate assess quantifiable and verifiable metrics that aim to achieve the export pilot's overarching outcome(s). The outcome(s) should be purposefully set to support the broader policy goal(s) of achieving affordable, clean, and reliable electricity and transportation. While the overarching outcome of the export pilot is not well defined in the record of this proceeding, VGIC believes that “Decrease Carbon Intensity” and “Improve Affordability,” as detailed in the Guidehouse study attached to SDG&E’s opening testimony, offer reasonable outcomes to prioritize.²⁵ With this in mind, and to the extent the necessary data is reasonably available, the metrics for this pilot should include, at a minimum:

- number of customers enrolled,
- number of participating customers utilizing the recently adopted Plug-in EV Submetering Protocol, and number of participating customers utilizing a separate utility meter,
- date and duration of customer participation,
- number of customers participating within AB 841 disadvantaged communities and number of customers participating outside of AB 841 disadvantaged communities,
- tons of CO₂ avoided through reduced marginal energy consumption,
- kWh exported during daily, monthly, and annual system peaks,
- avoided costs of marginal energy (i.e., total marginal energy component paid to participants),
- avoided costs of marginal generation capacity (i.e., total CPP credit paid to customers), and
- avoided costs of distribution capacity (i.e., total distribution component paid to customers).

F. Is SDG&E's marketing, education, and outreach proposal sufficient? How should it be modified if we adopt a one-stage pilot?

Establishing an export rate pilot in SDG&E service territory will result in two different but valuable export compensation options for EV charging customers: the export rate pilot and the

²⁴ EDF-02. *Opening Testimony of Steven Moss on Behalf of Environmental Defense Fund*, submitted on January 30, 2023, p. 10.

²⁵ SDGE-01, *Prepared Supplemental Testimony of Jeff DeTuri (Chapter 1) on Behalf of San Diego Gas & Electric Company*, served August 15, 2022, Attachment A, pg. 24.

ongoing ELRP EV/VGI Aggregation Pilot. While SDG&E has a certain amount of discretion over how it administers both offerings, including marketing, education, and outreach (“ME&O”), VGIC is concerned that SDG&E may inadvertently steer customers toward one program or the other. This “nudge” toward one offering or another may not necessarily be based on what is in the best interest of that customer but may be a result of other factors and are not likely to be a result of any malintent in the part of SDG&E or other stakeholders. However, VGIC strongly believes that the implementation of the export rate pilot should not come at the expense of the ELRP and, specifically, recommends that ME&O efforts for the export rate pilot should be well-balanced with efforts to enroll customers in ELRP.

IV. IF SDG&E IS DIRECTED TO RESUBMIT A DYNAMIC IMPORT RATE APPLICATION IN 2024, IT SHOULD FOLLOW BEST PRACTICES FOR REAL-TIME PRICING RATE DESIGN.

A. The import rate should enable participation in the export rate, such that customers can benefit from both EV charging optimization and V2X or storage-backed charging export opportunities.

As detailed in Section I above, SDG&E’s efforts to advance dynamic rate design must work toward California’s overarching vision for dynamic rates. VGIC believes dynamic rate offerings can promote EV charging optimization, not just V2X and storage-backed charging exports, which could unlock significant savings for a greater number of EV customers. While the number of V2X-capable products and services is growing, customer adoption is nascent relative to unidirectional charging products and services capable of managing EV charging load. It is unlikely that a robust market for “export only” V2X and storage-backed charging capabilities will emerge in isolation from the broader VGI marketplace. Instead, exports should be considered an extension of the benefits that smart, unidirectional charging can provide.

Moreover, VGIC believes the intent behind D.20-12-023, which originally catalyzed SDG&E's proposal for an EV-specific export rate, was to promote VGI broadly, not just V2X and exports. OP 9 of D.20-12-023 orders SDG&E to "file an optional dynamic rate application within 12 months of this decision."²⁶ With this in mind, VGIC recommends that any future EV-specific or general dynamic import rate be stackable with the export rate that may be approved and implemented before the dynamic import rate offering.

B. Customer eligibility should be broad to maximize the intended pilot outcomes.

VGIC believes eligibility for the import rate should include both commercial and residential EV charging customers, including those on separately metered EV charging rates and customers on whole-premise TOU rates that utilize the PEV Submetering Protocol to participate in EV-specific rates or other dynamic rates.

C. Dual Participation in other demand flexibility offerings, including ELRP, the CEC's Demand Side Grid Support, and telematics-based programs like SDG&E's proposed EV DR Pilot, should be promoted to maximize grid support opportunities for EVs.

In prepared supplemental testimony, SDG&E addresses dual participation as follows:

"Dual participation in a demand response program, such as CPP or ELRP, while on the RTP Pilot could also result in over-compensation to a customer since the customer could receive savings twice for the same load response (aka "double counting"). This over-compensation would be subsidized by other ratepayers."²⁷

VGIC agrees that resources should not be "double counted" or receive double compensation for the same load reduction or export. However, the use case and grid value from year-round EV charging optimization differ from emergency, incremental demand response participation in

²⁶ D.20-12-023, *Decision Authorizing San Diego Gas & Electric Company Rate for Electric Vehicle High Power Charging*, issued December 21, 2020, Ordering Paragraph 9, p. 38.

²⁷ SDGE-04, *Prepared Supplemental Testimony of Ray Utama (Chapter 4) on Behalf of San Diego Gas & Electric Company*, served August 15, 2022, pg. RU-6.

programs like ELRP and DSGS. As such, VGIC recommends that the Commission direct stakeholders work in the appropriate proceeding, for example, R.22-07-005 or A.22-05-002, to revisit dual participation rules.

V. CONCLUSION.

VGIC appreciates the opportunity to submit this opening brief to SDG&E's proposed import and export rate application. We look forward to further collaboration with the Commission and stakeholders on this initiative.

Respectfully submitted,

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