

**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)

**REPLY BRIEF OF THE VEHICLE GRID INTEGRATION COUNCIL**

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**REPLY BRIEF OF THE VEHICLE GRID INTEGRATION COUNCIL**

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 reply 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 and Email Ruling to Provide Directions for Reply Briefs and Allow Responses to Reply Briefs* (“Email Ruling”) issued by Administrative Law Judge (“ALJ”) Stephanie Wang on May 16, 2023, and June 19, 2023, respectively.

VGIC’s below reply brief first responds to the ALJ’s questions from the June 19, 2023, Email Ruling, as summarized below:

- The Commission should require a distribution component for the export pilot that applies SDG&E’s distribution CPP component currently implemented in Schedules GIR and VGI.
- The Commission should allow SDG&E to file a Tier 2 Advice Letter based on guidance in R.22-07-005 related to dynamic distribution export components if this guidance is issued in spring 2024.

- The Joint Settlement Agreement contains unclear language regarding “conjunctive billing” customers that should be clarified to ensure customers can participate in the export rate using the Plug-In EV Submetering Protocol.
- The export rate should be evaluated using a metrics-outcomes-goals framework, and metrics should include those suggested by VGIC in our Opening Brief.
- The Commission should not automatically terminate the pilot if the number of participants is insufficient, given the relatively nascent state of the market.
- The Settlement Agreement fails to comply with several Rate and Demand Flexibility Design Principles but would comply if a distribution component were included.
- The Settlement Agreement would not result in system reliability benefits and greenhouse gas reductions because it limits customer enrollment by offering an incomplete export price signal. These benefits could be unlocked with a more complete export price signal that includes a distribution component.

**I. RESPONSE TO QUESTIONS FROM JUNE 19, 2023, EMAIL RULING.**

*1. Cal Advocates argued in its opening brief that it is not feasible to include a dynamic distribution component in the export rate pilot because there have been significant implementation challenges for SDG&E’s distribution critical peak pricing (CPP) component for Schedules Public Grid Integration Rate (GIR) and Vehicle Grid Integration (VGI). Cal Advocates also argued that the Commission will consider dynamic distribution components in Rulemaking (R.) 22-07-005 and noted that the scoping memo for R.22-07-005 expressed an intention to issue a proposed decision on guidance for demand flexibility rates in March 2024.*

*a. If the Commission requires a distribution component for the export pilot, do you agree with Cal Advocates’ argument that the Commission should not apply SDG&E’s distribution CPP component from Schedules GIR and VGI due to implementation challenges?*

VGIC disagrees with Cal Advocate’s argument regarding whether SDG&E should apply its distribution CPP component from Schedules GIR and VGI. Cal Advocates asserts that “at this time, there is not a feasible way to implement a dynamic-distribution component in the export-rate

pilot.”<sup>1</sup> VGIC questions whether the distribution CPP (“D-CPP”) component from Schedules GIR and VGI is “infeasible” to implement, seeing as it is currently implemented for two SDG&E pilot rates. As noted by Cal Advocates, the Public GIR rate has 3 customers enrolled and the VGI rate has 3,381 customers enrolled.<sup>2</sup> As recommended in the Joint Settlement, the export rate would be limited to “SDG&E bundled customers on Schedules EV-HP, AL-TOU, and TOU-A” and customers that are not participating in “NEM, any demand response programs, including CPP and ELRP, legacy TOU rates, and conjunctive billing.”<sup>3</sup> These eligibility provisions, if adopted, will necessarily limit the number of customers enrolled in the export rate. As a result, applying D-CPP for the export rate and its existing implementations for Schedules GIR and VGI would result in an inherently bound implementation challenge with which SDG&E has experience addressing. It is, therefore, incorrect to assume that applying D-CPP to the export rate would trigger a new, insurmountable implementation challenge. Applying D-CPP to the export rate would instead represent an appropriate interim step forward for leveraging dynamic distribution components in SDG&E’s service territory.

Additionally, Cal Advocates’ argument regarding the feasibility of implementation, detailed in its Prepared Testimony,<sup>4</sup> is based on SDG&E’s Response to Cal Advocates Data Request #13:

“SDG&E experiences difficulty in implementing and billing the D-CPP rate component adopted for Schedules VGI and Public GIR because it requires pricing based on the customer’s circuit assignment. This significantly complicated executing the appropriate pricing for each customer on these rates because each customer’s circuit had to be tracked

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<sup>1</sup> Cal Advocates Opening Brief, pg. 7.

<sup>2</sup> SDG&E’s Data Response to Cal Advocates Data Request #3, question 14, pg. 11-12. Referenced in Prepared Testimony of Cal Advocates, pg. 1-25.

<sup>3</sup> Joint Motion for Adoption of Settlement Agreement, Attachment 1, pg 7.

<sup>4</sup> Prepared Testimony of Cal Advocates, pg. 1-24.

for CPP events and to confirm when each customer was on a particular circuit (since certain customers may switch between circuits throughout the day.)”<sup>5</sup>

VGIC understands implementing the D-CPP component requires tracking and confirming which circuit a customer is on, and we do not assert that this is an easy task. However, in addition to SDG&E already implementing it for two rates, VGIC believes it is reasonable to expect this task will be required to implement dynamic distribution components in California. As noted by Cal Advocates, the Demand Flexibility Rulemaking (R.) 22-07-005 is considering dynamic distribution components; the CalFUSE framework and ongoing Demand Flexibility Working Group B consider dynamic distribution components that require significant locational granularity.<sup>6</sup>

Taken together, the *current implementation* of the D-CPP component in two ongoing rates and the *forward-looking direction* of CalFUSE and Demand Flexibility Working Group B for locational granularity supports the implementation of SDG&E’s D-CPP component into the export rate. With this in mind, VGIC respectfully disagrees with Cal Advocates’ argument and believes the argument provides insufficient justification for limiting the export rate components to include only marginal energy and marginal generation capacity components.

Moreover, as highlighted in VGIC’s opening brief, adopting an export rate that incorporates only marginal generation components will not result in meaningful participation, which will miss out on the opportunity to yield lessons learned to inform future dynamic rate design efforts, benefit ratepayers through avoided distribution infrastructure costs, and accelerate fleet and other transportation electrification.<sup>7</sup> Based on commercially-available bidirectional charging and storage-backed charging products and the benefits utilizing these solutions can yield

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<sup>5</sup> SDG&E’s Data Response to Cal Advocates Data Request #13, Attachment 1-3, question 2.a., pg. 6.

<sup>6</sup> Cal Advocates Opening Brief, pg. 7.

<sup>7</sup> VGIC Opening Brief, pg. 3.

for ratepayers, electrified fleets, and society at large, it is the right time to authorize a tractable export compensation mechanism for SDG&E EV customers. This requires applying D-CPP to SDG&E's export rate.

***b. If the Commission requires a distribution component for the export pilot, should the Commission direct SDG&E to file a Tier 2 advice letter after a decision on guidance for demand flexibility rates in R.22-07-005 to implement a dynamic distribution component for the export rate pilot that complies with the guidance decision?***

As noted in VGIC's response to question 1.a. above, the Commission should require a distribution component for the export pilot that utilizes SDG&E's existing D-CPP approach implemented in Schedule GIR and VGI. VGIC strongly recommends the Commission (1) direct SDG&E to implement the distribution component in the export rate based on D-CPP from the outset, and (2) allow SDG&E to file a Tier 2 Advice Letter to request modifications to the distribution export component after guidance in R.22-07-005 related to dynamic distribution export components is issued.

VGIC understands that the Commission plans to issue guidance in R.22-07-005 to move forward with the CalFUSE framework and the topics addressed in the Demand Flexibility Working Groups, of which VGIC is a member. However, the issues scoped into the Demand Flexibility proceeding, the CalFUSE framework, and Demand Flexibility Working Groups span far beyond the scope of distribution export components for SDG&E's export rate. Based on the CPUC's bandwidth constraints and the sweeping nature of the rate design reform at hand in R.22-07-005, VGIC cautions against over-relying on R.22-07-005 guidance on the specific issue of dynamic distribution export component. VGIC is concerned that there may be delays to some or all of the guidance in R.22-07-005, including guidance on dynamic distribution export components, which

would in turn impose undue delays on SDG&E's export compensation pilot. With this in mind, SDG&E should be authorized to file a Tier 2 Advice Letter after guidance in R.22-07-005 related to the topic of dynamic distribution export components is issued. This Tier 2 Advice Letter would create an opportunity for SDG&E to request modifications to its distribution component export rate. In the event that R.22-07-005 guidance on dynamic distribution components in export rates is adopted in spring 2024, the Tier 2 Advice Letter pathway provides SDG&E an option to align with the guidance if they believe the D-CPP approach doesn't already align with it. Moreover, if the spring 2024 target for a decision is achieved, this provides SDG&E an opportunity to request modifications to its pilot nearly a year before the proposed pilot launch date of January 1, 2025.

Directing SDG&E to incorporate D-CPP into the rate now and allowing SDG&E the flexibility to submit a Tier 2 Advice Letter after guidance on dynamic distribution export components is issued in R.22-07-005 offers a desired balance of certainty (i.e., that there will be a distribution component in the export rate) and alignment with long-term rate design reforms (i.e., by allowing SDG&E to request modifications).

- c. If the Commission moves forward with the direction in 1(b) above and the guidance decision in R.22-07-005 provides a different approach to the generation CPP component, should the Commission direct SDG&E to also modify its approach to the generation CPP component of the export rate in the above Tier 2 advice letter?***

VGIC does not have a position at this time but may provide additional detail in reply comments.

- d. If the Commission requires SDG&E to include a distribution component in the export rate pilot, should any other aspects of the Settlement Agreement and/or export rate pilot proposal be adjusted? For example, will SDG&E's implementation costs increase or should the implementation schedule change?***

Regardless of whether the Commission requires SDG&E to include a distribution component in the export rate, the Settlement Agreement’s proposed provision regarding eligibility should be modified to remove the prohibition on “conjunctive billing” customers.<sup>8</sup> The Joint Settlement states, “conjunctive billing refers to customers with multiple meters on a single premise, where meter data is combined for the purpose of billing UDC charges.”<sup>9</sup> The record does not support the exclusion of these customers. Moreover, the Joint Settlement Agreement does not clarify whether customers participating in the export rate using the Plug-In EV Submetering Protocol would be deemed ineligible as a result of declaring “conjunctive billing” customers ineligible. The Plug-In EV Submetering Protocol (“PEV Submetering Protocol”), as adopted in D.22-08-024 and implemented through Resolution 5274, indisputably applies to these customers. The Commission states that “**the only limitations [D.22-08-024] places on PEV submetering participation are on simultaneous PEV submetering and NEM participation**, which was delayed until legal and technical issues can be resolved” [emphasis added].<sup>10</sup> At a minimum, the Commission should ensure that the adoption of the Settlement Agreement does not conflict with the PEV Submetering Protocol guidance, which implicitly but undoubtedly requires the protocol to be made available to customers in SDG&E’s export rate.

*2. The Settlement Agreement proposed a two-year pilot period with no cap on participation and automatic extension of the export rate (with no end date) unless SDG&E seeks authorization to terminate the pilot.*

*a. Is the proposed two-year pilot duration reasonable?*

VGIC does not have a position at this time but may provide additional detail in reply comments.

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<sup>8</sup> Joint Motion for Adoption of Settlement Agreement, Attachment 1, pg. 8.

<sup>9</sup> *Ibid.*

<sup>10</sup> CPUC Resolution 5274, pg. 19.



***b. Is it reasonable to authorize the export pilot with no cap on participation?***

VGIC does not have a position at this time but may provide additional detail in reply comments.

***c. What criteria should the Commission use to determine whether to extend the export rate beyond the pilot period (e.g., whether the export rate results in cost shifts to ratepayers, whether a minimum number of participants are using the rate schedule as of 18 months after the rate schedule is available, whether the implementation costs are too high or implementation is too challenging)?***

VGIC refers to Section III.E. in its opening brief, which details a strategy for evaluating the export rate based on a metrics-outcomes-goals framework.<sup>11</sup> Important metrics to inform the Commission's decision regarding the future of the export rate include:

- 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 CO<sub>2</sub> 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).

***d. How should the Commission adjust evaluation criteria and/or processes based on your response to 2(c) above?***

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<sup>11</sup> VGIC Opening Briefs, pg 14.

VGIC believes the evaluation process proposed in the Joint Settlement should be adjusted to include the above-mentioned metrics in addition to the three metrics detailed in the Joint Settlement. Moreover, the Commission should adopt the outcomes and goals detailed in VGIC's opening brief to represent a well-defined framework for applying these metrics

***e. Should the Commission automatically terminate the pilot at the end of the pilot period if the number of participants in the pilot is not sufficient to support an evaluation? What is the minimum number of pilot participants for meaningful data to support an evaluation report?***

No, the Commission should not automatically terminate the pilot at the end of the pilot period if the number of participants in the pilot is not sufficient to support an evaluation. While VGIC does not believe the number of participants will be too small to support evaluation, it is possible that unforeseen circumstances will arise that may delay customer enrollment beyond the 30 months evaluation timeframe. Notably, PG&E has opened customer enrollment in its V2X Commercial pilot, but it is running several years behind the originally proposed pilot schedule. While bidirectional charging and storage-backed charging product availability has matured in recent years and will continue to do so, several factors in the nascent bidirectional charging and storage-backed charging market could delay implementation. Any delays should not be considered a failure in pilot design or justification to automatically terminate the pilot at the end of the pilot period.

***f. If the pilot has enough participants by certain date (e.g. 12 months after enrollment begins), should the Commission require an independent evaluation of the export rate to inform a Tier 3 advice letter process for determining whether to extend the pilot?***

VGIC does not have a position at this time but may provide additional detail in reply comments.

***g. If the Commission requires an independent evaluation, what is the estimated cost for this evaluation?***

VGIC does not have a position at this time but may provide additional detail in reply comments.

***3. The Settlement Agreement proposes implementation memorandum account cost recovery through Public Purpose Program rates allocated via equal cents per kWh, for all customer classes. Is this approach reasonable from legal and public policy perspectives?***

VGIC does not have a position at this time but may provide additional detail in reply comments.

***4. Does the Settlement Agreement comply with each of the Rate Design Principles recently adopted in D.23-04-040?***

The Settlement Agreement fails to comply with Rate Design Principles (f): “Rates should encourage customer behaviors that optimize the use of existing grid infrastructure to reduce long-term electric system costs.”<sup>12</sup> By not including a distribution component in the export rate, the Settlement Agreement will not incentivize exports that avoid or defer distribution system upgrades and, in turn, fails to optimize the use of the existing distribution grid and reduce long-term distribution system costs.

***5. Does the Settlement Agreement comply with each of the Demand Flexibility Design Principles recently adopted in D.23-04-040?***

The Settlement Agreement fails to comply with Demand Flexibility Principles (a), (c), and (f). As noted in VGIC’s above response to question 4, the Settlement Agreement does not comply with Rate Design Principles (f) unless modified to include a distribution export component and, as a result, fails to comply with Demand Flexibility Principles (a), which requires compliance with the Rate Design Principles. Additionally, the Settlement Agreement does not comply with Demand

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<sup>12</sup> D.23-04-040, Ordering Paragraph 1.

Flexibility Principles (c) because it does not incorporate distribution capacity costs. Lastly, Demand Flexibility Principles (f) is not met by the Settlement Agreement because the compensation for exports is not enabling “economically efficient grid integration of customer-sited electrification technologies and distributed energy resources,” as it does not integrate exports based on local distribution system needs through the use of a distribution component.<sup>13</sup>

**6. *Does the Settlement Agreement address the potential for technical advances in load metering, sub-metering, and load management technologies over time?***

As detailed above in VGIC’s response to question 1.d., the Settlement Agreement proposes to deem customers operating on “conjunctive billing” ineligible for the export rate. It is unclear based on the language in the Settlement Agreement whether the use of submetering technologies per the PEV Submetering Protocol would qualify a customer as using “conjunctive billing.” If this is the case, the Settlement Agreement does not sufficiently address the potential for technical advances in submetering. However, if the Settlement Agreement is modified to ensure customers can participate in the export rate using the PEV Submetering Protocol, then the potential for the advanced use of submetering technologies over time would be addressed.

**7. *Would the Settlement Agreement result in system reliability benefits and greenhouse gas reductions?***

The Settlement Agreement has the potential to result in system reliability benefits and greenhouse gas reductions, but the ability for these benefits to be realized is limited unless meaningful customer enrollment is achieved. As detailed in VGIC’s opening briefs, including a distribution component can promote meaningful customer enrollment, while limiting the rate components to only marginal energy and generation capacity values will pose significant headwinds for realizing

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<sup>13</sup> D.23-04-040, Ordering Paragraph 2.

the benefits of an export rate. That said, the marginal energy and marginal generation capacity price signals themselves will reflect real-time grid conditions, which would incentivize customer exports during tight system reliability conditions. To the extent exports are incentivized during the system peaks, customer contributions can help offset peaking fossil fuel plants, thereby reducing greenhouse gas reduction (and local pollutants from those peaker plants). Lastly, to the extent that the rate is successful in enrolling customers, it can accelerate the broader transportation electrification effort, which can lead to greenhouse gas reductions from the transportation sector.

***8. Does the Settlement Agreement align with the Commission's Environmental and Social Justice Action Plan 2.0?***

VGIC does not have a position at this time but may provide additional detail in reply comments.

***9. Does the Settlement Agreement align with the Commission's Distributed Energy Resources Action Plan 2.0?***

VGIC does not have a position at this time but may provide additional detail in reply comments.

***10. Does the Settlement Agreement reasonably protect participating customers?***

VGIC does not have a position at this time but may provide additional detail in reply comments.

**II. CONCLUSION.**

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

Respectfully submitted,

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