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Comments of VGIC on DSGS Modified Draft 4th Edition Guidelines

Additional submitted attachment is included below.

January 28, 2025

Email to: docket@energy.ca.gov
Docket Number: 22-RENEW-01
Subject: California Energy Commission Demand Side Grid Support Program Guidelines

RE: Comments of the Vehicle Grid Integration Council on the Revised Demand Side Grid Support Program Draft Guidelines, Fourth Edition

Dear Sir or Madam:

The Vehicle-Grid Integration Council (VGIC) appreciates the opportunity to provide comments on the revised Demand Side Grid Support (DSGS) Program Draft Guidelines, Fourth Edition published by the California Energy Commission (CEC) on January 14, 2025.

VGIC appreciates the inclusion of electric vehicles (EVs) and electric vehicle supply equipment (EVSE) in DSGS. Option 3 not only allows vehicle-to-everything (V2X) bidirectional charging systems to provide emergency capacity and respond to extreme events, but it also establishes a foundation for future V2X programs in California. With the inclusion of EVSE in the proposed Option 4, EVs will also be eligible to provide significant amounts of load reduction for near-term grid needs through unidirectional managed charging. California already has 1.5 million EVs that can contribute to the Strategic Reliability Reserve, and with further growth expected, on-road EVs will undoubtedly support California's long-term reliability and clean energy needs.

However, VGIC emphasizes that, for existing program options, maintaining stability in DSGS is essential so that participants can rely on and plan for the program. Customers and aggregators have made investments and plans with the understanding that current participation rules would be largely maintained in 2025 and going forward. If the CEC changes program rules frequently such that customers lose eligibility between years, or aggregators must adapt to new processes, many may withdraw from the program due to increased uncertainty. Frequent rule changes can be particularly disruptive for smaller or early-stage participants, including bidirectional charging customers and aggregators, who have limited resources to adapt quickly.

To support success in DSGS and provide additional resources for near-term grid reliability needs, VGIC provides the following recommendations:

- Adding prescriptive baselines for V2X resources in 2026 is premature at this time.
- The 100-kW minimum aggregation size should be maintained for EV resources in Option 3.

- VGIC supports including EVSE in option 4, but the minimum aggregation size should be modified.

ADDING PRESCRIPTIVE BASELINES FOR V2X RESOURCES IN 2026 IS PREMATURE AT THIS TIME.

VGIC opposes the CEC's proposal to add a prescriptive baseline for V2X resources in Option 3. Currently, there is no prescriptive baseline applied to EVs participating in Option 3, but the new Revised Draft Guidelines propose that "Beginning in the 2026 program season, baselines shall be applied to all resources participating in DSGS Option 3." VGIC strongly believes that applying a prescriptive baseline is premature for V2X resources at this time.

Unlike the landscape for stationary battery resources, bidirectional EVs and V2X remains a relatively nascent industry with many barriers, most notably the limited availability and high cost of bidirectional chargers and a lack of compensation programs to incentivize V2X installations. In fact, DSGS is currently the only statewide program in California that compensates for energy from EV discharge and exports. The second most widely available program, the Emergency Load Reduction Program (ELRP), has a distinct compensation structure compared to DSGS Option 3 and is available only for investor-owned utility customers. There are also no widely available rate tariffs that compensate for V2X exports. Other programs, rates, and tariffs for V2X are limited pilots offered by specific utilities.

The primary goal of DSGS is to incentivize energy contributions that would not occur otherwise during times of grid stress. **Given the general lack of V2X program and rate offerings, it is likely that V2X discharge provided during a DSGS event would not have been provided absent program participation**. Baselines are typically utilized in demand response programs to measure performance and ensure incrementality. While VGIC understands the CEC's intent to reflect some element of regular discharge, as seen with stationary batteries under the Net Billing Tariff (NBT), V2X resources differ significantly in their operational context. There is no widely available tariff to allow for V2X discharge to serve behind-the-meter load or exports (unlike NBT for stationary batteries) and the IOUs' Rule 21 interconnection costs to allow for grid parallel V2X operations are extremely high ($800 per application vs. the $75 - $145 fee for NBT installations < 1 MW). DSGS also already explicitly prohibits dual participation in other demand response programs that are compensating for the same reduction in use of electricity or export. Therefore, applying a prescriptive baseline would erroneously classify V2X participation as non-incremental.

With this in mind, VGIC believes that imposing a prescriptive baseline for V2X resources in 2026 is premature and risks undermining the growth and potential of this emerging sector. If a baseline is not critical to establish incrementality, it only serves to reduce compensation to customers and aggregators. VGIC recommends the CEC remove the language adding baseline requirements until

a clearer understanding of V2X discharging behaviors and patterns emerges, which could occur following the 2025 season.

THE 100 KW MINIMUM AGGREGATION SIZE SHOULD BE MAINTAINED FOR EV RESOURCES IN OPTION 3.

In the prior Draft Fourth Edition DSGS Guidelines, the CEC proposed to increase the minimum aggregation size for Option 3 resources from 100 kW to 500 kW across all utility service territories and resource durations. The Revised Draft Guidelines released in January now propose 3 different minimum aggregation options for participating aggregators in Option 3: 400 kW across all utility service territories and resource durations, at least one aggregation with a total minimum nameplate power rating of 200 kW, or at least three aggregations with a total minimum nameplate power rating of 100 kW each. VGIC believes that this is an improvement over the previous proposal for a 500 kW minimum aggregation size, but we recommend that the CEC maintain a 100 kW minimum aggregation size for V2X resources currently included in Option 3.

As discussed above, V2X is still a nascent industry, and many V2X portfolios developed by aggregators may struggle to meet the minimum aggregation thresholds proposed above. Additionally, aggregators have been planning DSGS participation around the 100 kW minimum aggregation size. As discussed in the introduction, the CEC should aim to maintain as much program certainty as possible to maximize customer participation in the program. Significant changes to the program structure, including the very important minimum aggregation size, will discourage aggregators and customers from participating. This is especially true for V2X resources, which are less common, face more barriers to deployment, and primarily use their EV for mobility needs rather than electric grid services.

VGIC SUPPORTS INCLUDING EVSE IN OPTION 4, BUT THE MINIMUM AGGREGATION SIZE SHOULD BE MODIFIED.

VGIC appreciates the CEC staff extensive consideration of EVs and EVSE in DSGS, and we strongly support the Revised Draft Guidelines inclusion of these resources in the new program Option 4, Emergency Load Flexibility Virtual Power Plant Pilot. As discussed above, bidirectional V2X equipment is still relatively high-cost and nascent. On the other hand, and as previously discussed by VGIC in comments on DSGS, unidirectional EVs and EVSE are much more common and EVs are well positioned to provide demand response via load reduction (commonly referred to as V1G). With nearly 2 million EVs already sold in California, and millions more expected to achieve California's Advanced Clean Cars II and Advanced Clean Trucks rules, EVs provide immense potential load reduction that is only increasing given the scale and pace of EV charging load growth.

However, the proposed Option 4 minimum aggregation size risks foregoing greater EV participation in DSGS. The Revised Draft Guidelines include similar minimum aggregation terms to Option 3, but instead of having aggregation sizes based on nameplate kW, they are based on the number of devices enrolled. This means that the fewest EVs that an aggregator would be able to amass is 200 EVs in a single utility service territory. This may reduce the number of aggregators that can participate in DSGS Option 4. Additionally, in comparison to the HVAC and electric water heater loads included in Option 4, EVs are larger and more flexible loads. Light-duty, high-powered level 2 chargers often exceed 8 kW and drivers typically charge for only 2 hours during a 10 hour plug-in session.[1] Medium- and heavy-duty level 2 chargers can be larger, e.g., up to ~20 kW of power, while very large DC Fast Chargers can draw hundreds of kWs of power.[2] With this in mind, it is likely that EVs will be able to achieve larger load reductions with fewer devices.

VGIC therefore recommends that the CEC utilize a minimum aggregation size based on the ability for EVs to achieve incremental load reduction, instead of the number of devices. Other programs have taken a similar approach. For example, ELRP has a minimum aggregation size of 25 kW of incremental load reduction for EVs in a single utility service territory. Given that Option 4 will measure performance against nominated capacity, we believe setting a minimum aggregation size based on nominated capacity is more appropriate than device number. VGIC suggests that the CEC adopt the same 25 kW minimum aggregation size used in ELRP Subgroup A.5: EV Aggregation.

CONCLUSION.

VGIC appreciates the opportunity to provide these comments and looks forward to collaborating with the CEC and other stakeholders in this docket.

Respectfully submitted,
/s/ Zach Woogen
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[1] SEPA State of Managed Charging 2024. Pg 8. https://sepapower.org/resource/state-of-managedcharging-in-2024/
[2] https://afdc.energy.gov/fuels/electricity-stations