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CALSSA DSGS Comments 02-05-2024

Additional submitted attachment is included below.

CALIFORNIA SOLAR + STORAGE ASSOCIATION
smart local energy

February 5, 2024

California Energy Commission
Docket Unit, MS-4
715 P Street
Sacramento, CA 95814

Re: Docket No. 22-RENEW-01—Comments on Potential Modifications to DSGS Guidelines

California Energy Commissioners and Staff:

The Demand Side Grid Support (DSGS) program offers important and innovative approaches to provide reliability for California's electric grid using resources that can contribute substantially to a grid that is both reliable and clean, including behind-the-meter (BTM) batteries and other resources that have been unable to fully show their potential through other program pathways, such as demand response programs. The California Solar & Storage Association (CALSSA) has appreciated the opportunity to provide past input into the design of DSGS, and particularly Option 3, for BTM battery virtual power plants (VPPs).

On January 23, 2024, California Energy Commission (CEC) staff held a workshop to discuss the DSGS program and potential modifications to the DSGS Guidelines, Second Edition. CALSSA is pleased to provide comments on the staff proposals for modifications and on other potential modifications to the DSGS Guidelines.

1. **Timing and extent of modifications**

The target dates for modifying the DSGS Guidelines include a potential for the CEC to consider the modifications at the May business meeting. That would be after the program season begins. At the workshop, several stakeholders urged the CEC to move quickly and ideally to approve modified guidelines before the 2024 DSGS program season begins. We would like to emphasize the importance of having guidelines in place in time for a full season of DSGS participation with clarity and certainty in the program requirements.

CALSSA members have been making plans for the 2024 season for several months and are continuing to do so now. Providers and participants need to know the program requirements so that they can plan, optimize software and participation strategies, and communicate clearly and consistently with customers.

Modifications being considered now should streamline and improve on the existing DSGS Guidelines and program requirements, and should not introduce material new requirements or significant changes to the program rules.

We urge the CEC to focus foremost on these goals and to accelerate the timeline for modifying the guidelines in advance of the 2024 season.

2. Adding Flex Alert and EEA event triggers to Option 3

One of the potential modifications staff proposed to DSGS Option 3 is to add new event triggers based on Flex Alerts and Energy Emergency Alert notices (EEA Watch or higher) that occur up to 3 pm on the event day. The proposal warrants further discussion, but this modification should not be made for 2024. In fact, a similar potential modification was raised in spring 2023, but after receiving input, the CEC declined to take it up. CALSSA commented on the proposal at that time.[1] The comments here echo and expand on those prior observations.

This modification would be a major change to the program and should be treated as such, giving ample time for stakeholders to raise concerns and for the CEC to consider those concerns and weigh the pros and cons of implementing this change, as well as how to do so if the CEC does choose to go forward. That deliberate and thoughtful approach is important, but it is inconsistent with the need to move quickly to make program improvements before the 2024 season begins.

Among the main goals for 2024 are to operate DSGS Option 3 over a full season and to scale up the program and get significantly more adoption and participation, to show this pathway's capabilities and potential. A key to accomplishing these goals is maintaining the simplicity of a single price-based Option 3 event trigger and keeping program requirements as similar as possible to what providers and participants have been planning for based on existing guidelines.

Adding a separate event trigger that includes day-of events would not only risk slowing down the adoption of modified guidelines but would also delay the ability of aggregators to participate optimally, because they would need additional time to fully operationalize the new dispatch requirement.

Moreover, CALSSA's analysis during the 2023 guidelines-modification process demonstrated that all CAISO EEA notifications in 2020-2022 occurred on days that also met the Option 3 price threshold.[2] Thus, it would be very unlikely to have conditions that would lead to a CAISO emergency event without day-ahead prices triggering an event. This means that the CEC, its program administrator, aggregators, and customers would need to grapple with the added complexities of new event triggers, including potential day-of events, with minimal additional system benefit.

Including emergency-based and day-of events would significantly increase the complexity of explaining the program to customers and would decrease aggregators' ability to recruit new customers into the program.

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[1] CALSSA Comments on DSGS Guidelines and April 26, 2023, Workshop, submitted May 11, 2023 (CALSSA May 2023 Comments), TN # 250129, pp. 6-7.

[2] CALSSA May 2023 Comments, p. 6.

Aggregators have already engaged customers and developed educational and marketing materials based on a day-ahead program. Customers who have already signed up would need to be re-engaged, and the changes in battery behavior to account for possible same-day dispatches would need to be explained. Also, materials would need to be revised, requiring additional resources and incurring additional cost.

The current rules allow a battery operation plan to be implemented with a day's notice and based on a single price-based dispatch regime. Emergency-alert and day-of events would create the potential that battery operation plans will need to be changed to address the unlikely chance that an event occurs on a day without a price-based signal, including on a same-day basis. It might require a greater portion of the battery capacity to be committed to the program than would be required under the current dispatch regime, to ensure sufficient state of charge during event hours in case there is a day-of event. This also risks customers disenrolling and may make it harder to enroll new customers.

Given the increased complexity and greater resources needed to operationalize this new requirement, a higher incentive level would be needed for participants and providers to respond to these emergency-alert and day-of events. For customers, the higher incentives would need to compensate them for the additional resources they would provide to the program, including the potential additional forgone opportunity to use their batteries for other purposes if a CAISO emergency event occurs on a day when a price-based event was not already called.

Aggregators would incur additional costs to incorporate the new triggers into their VPP dispatch programs, both up front and on an ongoing basis, and also would need higher incentive levels to participate with this new requirement. Aggregators have already evaluated how to optimize resources for participation and delivery of capacity into the program, and such a material change to the program would require reevaluation and modifications to software. For example, aggregators will need to develop new tools to automate operation of their fleets. CAISO day-ahead market prices are currently available to aggregators in an Application Programming Interface (API) that allows for battery dispatch to be automated. To our knowledge, no similar API exists for Flex Alerts or EEA events.

The addition of these new event triggers could also call for additional work by the DSGS program administrator to create a clear and automatable format for conveying CAISO emergency dispatches to aggregators.

If the CEC does add day-of events, they should not count toward performance for the incentive payment. A day-of signal would limit the time available to reach a sufficient state of charge and ensure the greatest possible performance, including meeting the capacity requirement over the nominated duration. If events when aggregators could not deliver at the optimal capacity count toward monthly performance, this would impact overall performance and reduce compensation. Thus, participants and providers should not be held to the same performance requirements for same-day events as for day-ahead events. The best approach to avoid this

concern would be to not include these events in the performance calculation. In other words, if these events are added, they should be considered optional, not required.

While the staff presentation at the workshop touched on some of the following considerations, we also want to confirm these would apply to CAISO emergency-based events, if they are added to Option 3.

(1) CAISO emergency event hours would be limited to the existing 4:00-9:00 Option 3 program hours.
(2) Option 3's relative price trigger would still apply—i.e., the event hours would be the program hours with the highest mean consecutive LMP over the duration of the VPP's 2-, 3-, or 4-hour capacity commitment.
(3) Additional emergency-alert events would count toward the 35-event maximum for the program year. In fact, CALSSA recommends that if CAISO emergency events are added, an additional separate maximum number of these events should be established. CALSSA previously recommended a maximum of 5 day-of events.[3] Both the 5 emergency-alert event maximum and the overall 35 program event maximum should apply to these events.

The considerations discussed here demonstrate the complexity of this staff proposal. These considerations could be worked through for potential inclusion of CAISO emergency-based triggers in future program seasons, but CALSSA recommends that if the CEC pursues this proposal, it should not attempt to implement it for the 2024 season. Instead, any consideration of adding new event triggers should be done after a full season of operation under the existing day-ahead price-based program design. Also, such a change should be approved far enough in advance of the program season so that aggregators can adjust their approach to engaging with customers and operating the program.

In fact, it would be preferable to consider a future emergency-alert program offering as a separate participation pathway with a separate capacity-based incentive payment, rather than making it an additional requirement in the price-triggered Option 3 pathway. Providers and customers could be allowed to participate in either or both programs for greater flexibility.

In summary, this proposed modification adds significant complexity and requires additional time and stakeholder input to work through details of how to operationalize it, while the additional benefit to be gained is minimal. The resources of the CEC, its program administrator, providers, and participants will be better used addressing other ways to improve Option 3, and working quickly to get the program guidelines approved in advance of the start of the 2024 summer season.

3. Incentive levels

CALSSA previously recommended higher incentives for Option 3 and submitted comments stating that the incentive levels listed in the current DSGS Guidelines do not reflect the value of

[3] CALSSA May 2023 Comments, p. 7.

the capacity resource offered by Option 3 VPPs.[4] While a 30% bonus applies to the incentives for 2023 and 2024, that level is lower than needed to compensate participants at the full value of the resource and at the level needed to spur robust participation. Other stakeholders, including CALSSA members, have also urged the CEC to adopt higher incentive levels.[5]

The CEC should increase the incentive levels for Option 3—and the commensurate levels for Option 2—beginning with the 2024 season. Doing so will better reflect the value of the capacity resource, including the value of avoiding costs associated with power outages, and it will better enable DSGS providers to recruit customers and provide substantial reliability resources for this program.

The reasons presented in CALSSA's prior comments for higher incentives remain. Some of those reasons are summarized below.

- Capacity market values have increased markedly in recent years, and are expected to remain high. The DSGS incentives do not reflect these values and therefore undervalue the capacity resource offered by Option 3 (and Option 2, which also compensates resources on a capacity basis).
- The DSGS program is designed to avoid power outages, and the incentives should reflect the substantial avoided costs of such outages, including economic costs and the value of avoiding threats to public health and safety.
- To meet program goals by providing meaningful reliability capacity, the incentives should be set at a level sufficient to attract and garner robust participation by customers, particularly given that customers will face a lost opportunity cost when DSGS dispatches conflict with battery operation for bill savings. The level should also compensate VPP aggregators for the resources they devote to enrolling customers,

[4] CALSSA DEBA/DSGS revised proposal, submitted March 24, 2023, TN # 249422 (CALSSA Revised Proposal), p. 8; CALSSA May 2023 Comments, pp. 3-6; CALSSA Comments on Modified Draft DSGS Guidelines, submitted July 10, 2023 (CALSSA July 2023 Comments), pp. 2-3.

[5] Sunrun and Leap Revised Proposal—DER Program Design, submitted March 17, 2023, TN # 249330, pp. 16-17; Sunrun Comments on Modified Draft DSGS Program Guidelines, Second Edition, submitted July 10, 2023, TN # 250995, pp. 1-5; Stem Comments on Draft DSGS Program Guidelines, Second Edition, submitted May 11, 2023, TN # 250103, pp. 1-2; Sunnova Comments on DSGS Revised Program Guidelines, Second Edition, submitted May 11, 2023, TN # 250995, pp. 3-4; Generac Comments on Proposed DSGS Guidelines, submitted May 11, 2023, TN # 250122, p. 15 (Generac May 2023 Comments); Advanced Energy United Comments on DSGS Program Draft Guidelines, submitted May 11, 2023, TN # 250132, p. 6; California Efficiency and Demand Management Council, Comments on CEC DSGS Proposed Draft Program Guidelines, submitted May 11, 2023, TN # 250120, pdf pp. 8-9; OhmConnect, Google Nest, and Voltus Comments on DSGS Revised Program Guidelines, submitted May 11, 2023, TN # 250099, pp. 4-7.

developing DSGS products, operating aggregations, collecting and processing data, administering the program, and other related work.[6]

We offer the following additional considerations regarding the need for higher incentive levels.

First, capacity prices remain extraordinarily high, because the supply of Resource Adequacy capacity continues to be exceptionally tight. This is the result of several dynamics, including more extreme weather conditions and resulting volatility of demand and generation output, less reliable hydropower contributions, delays in new resources from challenges in permitting and interconnection, reduced availability of imported energy, changes to RA capacity valuation methods reducing the ability to rely on wind and utility-scale solar resources, an increased planning reserve margin, supply chain issues, a tight labor market, and inflationary pressures generally.[7] As a result, more RA capacity is selling at extremely high prices, including over $60/kW-month in September in 2021 through 2023.[8]

The high cost of capacity is also demonstrated by the values estimated for generation capacity in the CPUC's Avoided Cost Calculator (ACC). The ACC includes avoided capacity costs of approximately $250/kW-year on average for 2024 through 2026. This is substantially more than the current DSGS incentives for Options 2 and 3.

Second, going forward, more of the BTM batteries that are potential participants in DSGS Option 3 will be paired with solar under the Net Billing Tariff (NBT), which greatly reduces the value of exported energy and, except in a small minority of hours, provides substantially less value than the applicable retail rate. This strongly incentivizes the use of batteries to offset load and reduce grid consumption rather than to export energy to the grid, in order to maximize bill savings. Also, NBT customers benefit from their batteries exporting during the few hours with high NBT export values to increase bill credits.

DSGS participation interferes with batteries being operated for NBT load reduction and high-export-value hours, because it concentrates discharge into fewer hours, requiring energy to be exported at low rates instead of being preserved to offset load during expensive peak energy rate hours, and because there is a potential for a mismatch between the high NBT export hours and DSGS hours so that the few high-value NBT hours may be missed.[9] This can result in significantly lower bill savings. This is more of an issue when more DSGS events occur in a

[6] CALSSA May 2023 Comments, pp. 4-6.
[7] CalCCA Comments on AB 209 PRM Workshop, submitted November 30, 2023, in Docket Number 21-ESR-01, TN # 253397 (CalCCA PRM Workshop Comments), pp. 3-4; CALSSA May 2023 Comments, p. 4.
[8] CalCCA PRM Workshop Comments, pp. 5-6.
[9] While spreading out battery discharge over a longer duration by enrolling in a 4-hour DSGS aggregation can reduce the conflict between offsetting load and discharging for a DSGS event, doing so is counter to DSGS's objective of concentrating discharge to provide maximum capacity in the highest-need hours to address and avoid grid emergencies.

program season. When evaluating the potential benefit of participating, customers must assess the potential downside of the maximum number of DSGS events occurring. DSGS incentives need to be high enough to not only exceed the lost bill savings but to provide enough net positive revenue to convince customers to enroll even in the worst-case scenario. To encourage more customers on NBT to enroll, DSGS should compensate them at a high enough level to incentivize participation and dispatch in response to actual grid needs rather than dispatch in response to pricing set far in advance. Current DSGS incentive levels do not accomplish that. Analysis by CALSSA members demonstrates a range of lost-opportunity cost that can totally negate the value of participating in DSGS.[10]

For all these reasons, CALSSA urges the CEC to increase DSGS incentive levels as part of the 2024 modifications to the DSGS Guidelines.

Moreover, in the modified DSGS Guidelines, increased incentive levels should be extended beyond 2024, ideally throughout the program life, or at minimum through 2025. Extending higher incentive levels now will give customers and providers greater certainty of the value proposition and encourage greater participation. While the 30% bonus level that is available for 2024 is below what CALSSA and many others have concluded is needed to fully realize the potential of the BTM battery VPP pathway, it has allowed some participation, and if the CEC does not increase incentive levels, it should at least extend the bonus.

CALSSA believes an increase in incentive levels will lead to greater success of this innovative program. We are concerned at the prospect of the opposite: a lower incentive level leading to program underperformance because of low participation. Implementing the base level in the DSGS Guidelines Second Edition would likely lead to substantial unenrollments and hamper the program's ability to bring reliability resources to bear, undermining the goal of demonstrating the value of BTM battery VPPs as grid resources. We urge the CEC to clarify that it will not return the incentive to the base levels at any time during the program life.

4. Customer eligibility

CEC staff proposed a change to the approach for verifying customer eligibility in Option 3: requiring participants to acknowledge and agree to the prohibition on dual enrollment to the best of their knowledge, and requiring aggregators to attest that they have control over each participating battery and they are not aware of a participant's enrollment in conflicting programs to the best of their knowledge.

CALSSA supports this change because one of the main barriers to enrollment and participation has been verifying customer eligibility. This has particularly created a burden for DSGS providers that are not also DR providers participating in the CAISO market.

That said, the aggregator's attestation should be specific to the relevant period: an aggregator should attest to having no awareness of the participant being in conflicting programs during

[10] See, e.g., Generac May 2023 Comments, pp. 15-16.

DSGS program months when the participant is enrolled in DSGS. Also, the process should not require customers to provide repeated acknowledgments each year.

An additional program modification the CEC should implement is to verify customer eligibility earlier in the season, unlike the end-of-season process in 2023. Instead, eligibility checks should be done in advance of the program season or as early as possible.

Finally, as noted in CALSSA's May 2023 Comments, there are circumstances in which it could be possible for customers with separately metered batteries to participate in DSGS Option 3 while also participating in another program with other load-control technologies.[11] Device-level DSGS enrollment would allow multiple devices behind the same customer utility meter to participate in DSGS. We would like to work with the CEC and other stakeholders to identify and address current barriers to expanding DSGS eligibility to allow for this—such as the CAISO gross consumption baselining methodologies.

5. Requiring a full-duration event in every month

For Option 3, staff is contemplating requiring at least one full-duration event each month to demonstrate capacity. While this is within the capabilities of DSGS providers and participants that are CALSSA members, it does not appear necessary, and staff should consider either not making this change or modifying the proposed change.

DSGS Option 3 is designed to respond to market conditions, and if the market prices and conditions do not call for a full-duration event, requiring a full-duration dispatch in every month is unnecessary and adds needless complexity. In fact, this would exceed the requirement for testing of third-party DR resources in Resource Adequacy, which requires a quarterly test.[12]

Also, adding to the number of test events means that customers will be asked to participate in more events that are not responsive to actual grid needs. This could discourage participation, since customers want to be involved in a program that allows them to contribute to grid reliability, rather than discharging only to pass a test, especially given that every DSGS discharge will potentially reduce the customer's opportunity to reduce their energy bill by discharging for TOU or NBT purposes.

We recognize the value of test events, and support the existing requirement to have a full-duration test event in any month for which no program event occurs. If the CEC deems it necessary to expand on the current test event requirement, the guidelines could be modified to require a full-duration dispatch during the first month of the program season—or for the first month in the season during which an aggregation is operational, if it joins the program after the first month of the season—whether that full-duration dispatch is a pure test event or an extension of a program event. Thereafter, each month should include either one or more program events of the duration required by grid conditions and program rules, or a full-

[11] CALSSA May 2023 Comments, p. 9.
[12] California Public Utilities Commission Rulemaking 21-1-002, Decision 23-06-029 at p. 108.

duration test event. These subsequent events will allow the aggregation to demonstrate that it continues to deliver capacity at the expected level.

6. Deadline for claim submittal

At the workshop, CEC staff proposed establishing a deadline for submitting claims, and solicited input into what would be a reasonable deadline to ensure timely reporting of performance while providing sufficient time for providers and participants to gather necessary data.

The modified guidelines should clarify that the deadline applies to the initial submission of a claim, and should not impose a deadline on DSGS providers that also includes actions by the CEC and its program administrator after the initial claim submission.

For Option 3, which requires the submission of device-level data, CALSSA suggests that the deadline be no shorter than 30 days, and the CEC should consider a deadline of approximately 60 days, with claims due on December 30 or preferably in early January, to provide sufficient time when taking the Thanksgiving and winter holidays into account.

The CEC should also consider setting a deadline for the CEC's processing and payment on claims. A similar timeline of approximately 30 to 60 days would be reasonable.

7. Participant information shared with the CEC

Staff proposed to modify the participant information submitted to the CEC, limiting it only to the SAID and/or service address. CALSSA supports this modification. The new guidelines should be clear that only one of these items of information is needed. Aggregators may not have access to a customer's SAID, so requiring that information would necessitate additional effort on the customer's behalf and could pose a barrier to enrollment.

8. Conclusion

DSGS represents an important step forward for California. It provides opportunities to demonstrate the value of demand-side resources that have often been left on the sidelines despite their significant potential to make crucial contributions to our electric system's functioning, including as valuable reliability resources.

The CEC has shown a willingness to test out new approaches in DSGS, and the current process of considering modifications to the program is a chance to make improvements so that the program can be more successful in 2024. We hope that the modifications can take place quickly enough that 2024 can be the first full May-October program season, and that the modifications move in a direction that better enables BTM battery VPPs to play a role. We urge the CEC not to add more complexity, like emergency-alert and day-of events, and to focus efforts on streamlining the program and making it more attractive to participants. That will allow DSGS providers to confidently recruit new customers and multiply the capacity they offer our state to address and avert grid emergencies.

CALSSA appreciates being able to contribute to the development of the program and looks forward to our members helping it to succeed.

Sincerely,

/s/ Kate Unger
Kate Unger
Senior Policy Advisor
California Solar & Storage Association