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CALSSA Comments on DSGS and DEBA Workshop

Additional submitted attachment is included below.

CALIFORNIA SOLAR + STORAGE ASSOCIATION
smart local energy

February 17, 2023

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

Re: Docket No. 22-RENEW-01—DSGS and DEBA Programs, Comments on January 27, 2023, Workshop

California Energy Commissioners and Staff:

The California Solar & Storage Association (CALSSA) appreciates the opportunity to submit comments on the California Energy Commission (CEC) workshop held on January 27, 2023, to discuss the Demand Side Grid Support (DSGS) and Distributed Electricity Backup Assets (DEBA) programs.

CALSSA supports California's efforts to improve grid reliability while continuing and accelerating the transition to a clean energy electric system. Distributed energy resources, including behind-the-meter (BTM) energy storage and solar-plus-storage, are a crucial element of a reliable, affordable, sustainable energy system.

DSGS and DEBA are important new initiatives to support California's reliable clean energy objectives. BTM storage should be central to both programs. CALSSA has submitted a proposal for a combined program to provide substantial BTM storage capacity for reliability services through DEBA equipment funding and DSGS performance payments.[1]

These comments provide input on several questions posed by the CEC during the January 27 workshop as well as several other issues raised during the workshop discussion.

I. DSGS

1. DSGS Policy Goals and Considerations

The workshop focused on several policy objectives and considerations in designing the DSGS program to best achieve its goals while avoiding unintended consequences.[2] The list of goals and considerations is lengthy, risking program design becoming complicated in the attempt to accommodate disparate considerations. CALSSA recommends narrowing the list to focus on

[1] See CALSSA DEBA/DSGS program design proposal, submitted January 20, 2023, TN # 248480 (CALSSA Proposal).
[2] See Workshop Presentation, Demand Side Grid Support Program and Distributed Electricity Backup Assets program, Lead Commissioner Workshop, January 27, 2023, TN # 248608 (Workshop Presentation), p. 22.

top-priority goals and considerations. Consistent with the statutory language, primary goals should be focused on providing emergency supply and load reduction during extreme events, prioritizing resources according to the established loading order, and minimizing emissions of pollutants and greenhouse gases. The following considerations should be removed because they are duplicative or are secondary considerations: "Ensure high performance under peak & critical conditions," "Promote regular & active participation of clean resources in wholesale energy markets," "Provide incentive parity between resource types," and "Reduce ratepayer impacts."

We offer the following additional comments on specific listed policy goals and considerations.

"Provide alternative pathway for non-ISO customers and customers facing integration barriers"

CALSSA strongly supports the goal of providing alternative pathways for customers facing barriers to direct CAISO participation. BTM resources face several barriers to participating in CAISO markets, but these resources can provide load reduction during critical hours. Thus, creating a market-informed participation model that pays for resource performance during critical hours without requiring CAISO market integration would allow these resources to provide greater value. CALSSA's proposal previously submitted to the CEC describes this additional DSGS option in more detail.

"Maximize incremental capacity and load reduction from demand-side resources"

Currently, the vast majority of Resource Adequacy (RA) resources in California are front-of meter resources. By contrast, BTM resources (as demand response) account for only a small portion of the total LSE and non-LSE RA showings. This low participation rate is largely due to barriers CALSSA has discussed in previous comments, such as the inability for BTM batteries to be credited for energy exported to the grid. Thus, finding ways to increase the reliability contribution from demand-side resources through new participation pathways and policy changes should be a high priority for DSGS funding. As mentioned above, one way to do this is to create a market-informed participation model.

Resources funded through DEBA whose generation or discharge can be directly metered should use direct metering to calculate performance based on generation or discharge during the event rather than on baselines. The concept of incremental load reduction would not need to apply to resources that would not have otherwise existed without this program, and therefore baseline methodologies to calculate incremental load reductions would be unnecessary.

"Ensure Resource Adequacy and CAISO wholesale market participation over emergency programs"

CALSSA agrees that it is important to ensure that the Resource Adequacy program remains strong and procurement is sufficient to meet system demand within planning standards when

possible. However, the purpose of DSGS and DEBA is to provide additional resources beyond those standards. It is important for the program to prioritize meeting that objective while being sensitive to RA needs.

Currently, very few demand-side resources participate in the RA program because of various policy barriers—and most of those BTM resources are emergency reliability resources that are only triggered during emergency events. Thus, DSGS and DEBA could avoid "cannibalizing" or conflicting with the RA program by focusing funding on BTM resources, which, for the most part, do not currently participate in wholesale markets. Given that multiple mechanisms already exist to bring front-of-the-meter (FTM) resources online for reliability (RA, Integrated Resource Planning, Renewable Portfolio Standard, etc.), using DEBA/DSGS funding for those resources will create duplicative funding and cannibalize projects that would otherwise have been built for those other programs.

The CEC should keep in mind that BTM resources may provide RA in months outside the DSGS program season. Additionally, capacity procured via DSGS should be recorded in LSE forecasts, so their RA value is recognized without double procurement.

Similarly, while there is value in ensuring a strong CAISO wholesale market, given the substantial barriers and low level of participation in the market by demand-side resources such as BTM storage, DSGS should approach this consideration thoughtfully and not elevate it over the primary goal of ensuring emergency resources are available during extreme events. That said, wholesale market prices are good indicators of grid need. CALSSA supports and has proposed a program design for BTM storage that would involve dispatch based on market-price-based triggers, so that these resources will be used and useful in more hours.

2. Unlocking Untapped DR and Stranded Resources

The CEC presentation poses the question, "How best can the program unlock untapped DR or other stranded resources under its statutory constraints?"[3]

Expanding eligibility to more customers outside municipal utility territories, discussed in the following section, is a key strategy. Many existing customers in IOU territories are sitting on the sidelines because of barriers to participation in programs available in those locations. For customer-side resources to bring their greatest contribution, it is key to preserve customer choice and enable multiple pathways that meet the needs of different customers.

Alternatives to wholesale market participation are crucial, as the requirements of wholesale market participation are numerous and burdensome for BTM resources. A combination of customer registration requirements, sub-LAP minimum capacities, and punitive QC rules leaves a lot of potential capacity on the table.

[3] Workshop Presentation, p. 30.

It is also important to provide maximum flexibility in program structure and enable OEMs and aggregators to optimize participation for each customer type.

In non-IOU and non-CAISO territories, the largest barrier is created by allowing program participation only through the local municipal utility. CALSSA is encouraged that the CEC is proposing to enable aggregators to serve as DSGS providers. We offer further comments on that topic in section I.4 below.

3. Expansion to Use-Cases in IOU Territory

With the passage of AB 209, the CEC is now authorized to expand DSGS eligibility to all energy customers in the state that are not enrolled in a demand response or emergency load reduction program offered by a CPUC-jurisdictional entity.[4] At the workshop, the CEC explained that it is considering expanding the program to certain IOU customers, including customers using backup generators.[5]

Customers with BTM batteries should also be included as eligible DSGS participants. This will unlock assets stranded as a result of the barriers to participation in existing programs, which create substantial disincentives. As noted before, increasing program options will enable more customers to participate in grid services programs. The CEC should not be concerned that expanding eligibility to BTM storage customers in IOU territory will weaken existing programs. The better way to think about this is that each customer should have the opportunity to participate in the best-fit program, and doing so will maximize the contribution each customer can provide.

Residential customers, in particular, have very few opportunities to participate in DR programs. While maintaining restrictions on dual participation, it is best not to restrict DSGS eligibility. Instead, we should create as many opportunities as possible to bring more resources to bear. Customers should have the option of participating in the program that best meets their needs.

Better enabling aggregators to manage program participation will increase the impact of individual customer participation. Further, if an aggregator takes on the role of a DSGS provider and enlists customers, the CEC can be agnostic to the type of customers included, so that both residential and non-residential customers should be eligible and encouraged to participate. An aggregator can build a fleet based on its customer base and business model, with the system benefiting from the resulting megawatts-scale reliability resource.

The CEC should also consider the benefits of encouraging more customers with BTM batteries to participate in this program, versus providing DSGS compensation to customers with backup generators but not to customers with batteries. Many customers install both of these

[4] Public Resources Code, § 25792(b).
[5] Workshop Presentation, p. 24.

technologies for similar reasons, and the decision between a generator or a battery is influenced by cost considerations.

There are also co-benefits in encouraging greater adoption of BTM storage. As an important source of backup power, storage serves resiliency needs at the community level, particularly when installed in community centers, hospitals, schools, municipal buildings, and so forth.

4. Aggregators as DSGS Providers

The CEC should move forward with modifying DSGS guidelines to incorporate aggregators of customers as DSGS providers.[6] CALSSA recommended this modification in its DEBA/DSGS program design proposal submitted on January 20, 2023.[7] Aggregators have existing relationships with customers on which they can build, as well as marketing expertise to reach new customers. Customers can be engaged and brought into reliability-resource fleets, but to do so successfully requires reducing friction and increasing understanding and comfort. Aggregators are better positioned to provide this service than most utilities are, especially smaller municipal utilities.

Aggregators also have existing technology and expertise enabling them to provide capacity from aggregated fleets of BTM resources without needing to develop capabilities from the ground up, as many smaller municipal utilities might, so they can bring customers on board quickly.

Sunrun and Leap (jointly) and Generac submitted program recommendations in which they also discuss the advantages of including third-party aggregators as DSGS providers.[8] CALSSA agrees with the points made by those parties.

5. Minimum Dispatch Hours

CALSSA also recommends that the DSGS program guidelines be modified to include minimum dispatch hours for Option 1 (energy payment only structure) and Option 2 (standby and energy payment structure). Providing a level of certainty in compensation will increase participation in those program pathways. CALSSA's recommendation is discussed more fully in our program design proposal submitted on January 20.[9]

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[6] Workshop Presentation, p. 24.
[7] CALSSA Proposal, p. 10.
[8] Sunrun and Leap Proposal—DER Program Design, January 26, 2023, TN # 248550, p. 2; Generac DEBA & DSGS Program Recommendations, February 7, 2023, TN # 248681, p. 3.
[9] CALSSA Proposal, pp. 9-10.

6. Methodology for calculating incentives

The workshop presentation describes a potential modification to the method for calculating incentives for DSGS, netting the incentive amount based on the full dispatch period.[10] In the example presented, if a program event is 6-9 pm, and a resource drops 2 MWh from the baseline during 6-7 pm and 3 MWh during 7-8 pm, but increases 2 MWh from the baseline during 8-9 pm, the incentive would be based on 3 MWh rather than 5 MWh.

CALSSA recommends that the CEC consider not using baselines to measure event performance for resources that can be directly metered—such as batteries—and that are deployed as DEBA/DSGS resources. Rather, the CEC should pay for actual event discharge, both because these resources can be considered fully incremental and to encourage them to cycle on non-event days as well as during events. Taking this approach to measuring discharge or generation would negate the need for load netting.

If baselines remain, CALSSA recommends that the CEC not adopt this program modification. A better approach would be to provide incentives at different levels for customers to dispatch during higher-need hours during an event window. In the presentation example, if the window of greatest concern is 6-8 pm and the customer dropped from baseline during those hours, the customer should be rewarded for that full capacity provided. If the customer increased load from baseline from 8-9 pm and those hours were not crucial load shed hours, then reducing compensation for the customer's delivery of energy during the times at which the grid needed it (6-8 pm) is not optimal program design. In other words, the program should more heavily weight the most crucial hours and provide compensation based on performance during those hours, without an equal reduction for behavior outside the less critical hours.

7. Visibility Considerations

At the workshop, the CEC solicited input into two visibility considerations: the "need for CAISO and energy market to have visibility into the energy load provided," and the "need for host utility to have visibility into customer and aggregator activity."[11]

Regarding the CAISO and market visibility question, CALSSA believes that visibility can be provided easily. For DSGS Options 1 and 2, existing DSGS guidelines require providers to determine the amount of load reduction that will be available during an event dispatch period. For CALSSA's proposal based on DSGS Option 3, participants provide a capacity commitment in advance. Both of these mechanisms provide visibility into the expected capacity that will be delivered. After events, resources that can be directly metered can provide 15-minute interval data on their operation. For example, BTM batteries could provide charge/discharge data at 15-minute intervals to verify energy provided and to calculate payment.

[10] Workshop Presentation, p. 25.
[11] Workshop Presentation, p. 18.

For host utility visibility, aggregators and customers can provide data to LSEs similar to that provided to the CEC and CAISO.

8. Participation in Multiple Programs

The CEC asked about an effective method to ensure that customers do not participate in multiple programs if aggregators participate in DSGS directly.[12]

Participation in multiple programs is only problematic to the extent that a single energy contribution is double-counted or double-compensated. The ELRP program has a well-tested set of dual participation rules to address this problem, and those rules could be incorporated into DSGS to similarly avoid problems of participation in more than one program. Importantly, the CA IOUs recently requested to amend the dual participation rules for ELRP so that a single customer is allowed to participate in multiple programs so long as the customer uses device-level sub-metering to measure the performance of its ELRP-enrolled device independently of its participation in a separate IOU DR program. A similar approach could be taken to the DSGS program.

Aggregators and program administrators (typically, utilities) are already used to coordinating between programs and verifying customer eligibility, including that a customer is not enrolled in another program. These methods are workable, though there is room for improvement. CALSSA can provide further feedback on specific proposed methods in draft guidelines.

II. DEBA

1. Funding Disbursement Considerations

Grant Funding Opportunity: The CEC is currently contemplating disbursing DEBA funds using a Grant Funding Opportunity (GFO) structure.[13] CALSSA is concerned that structure will favor certain kinds of resources over others, and will limit the ability of some resources to participate in DEBA. This result runs counter to the CEC's effort to develop a program design that can accommodate diverse resources and projects.[14]

Large entities such as utilities, energy service providers, and water agencies seem better positioned to respond to a GFO. BTM resources and smaller commercial customers will be at a disadvantage with this structure. There is some potential that third-party aggregators and manufacturers could apply to a GFO, but there are challenges and risks to that approach. For example, until customers are enlisted, an aggregator may have difficulty knowing what level of funding to request and what amount of resources it can commit to providing, but until the aggregator knows what funding is available, it may have difficulty enlisting customers.

[12] Workshop Presentation, p. 30.
[13] Workshop Presentation, p. 48.
[14] Workshop Presentation, p. 46.

A GFO may entail administrative burdens in both the proposal and post-award phases. Based on member experiences with past GFO processes, CALSSA projects that many companies would choose not to participate.

Also, a GFO is most appropriate where the type of technology is not well established and there is a need to keep upfront eligibility as open as possible. That may be well suited to some technologies, but there are other technologies that are proven and standardized, for which an incentive program approach is preferable. Technologies that are ready to be deployed at scale, such as BTM energy storage, should not go through a GFO process.

Instead, there should be an open enrollment incentive program that allows projects to apply when ready. This approach would create greater market certainty; reduce administrative time and costs for applicants, project developers, and CEC staff; and foster stronger markets.

Accordingly, to better incorporate these BTM resources into the program, CALSSA recommends that the CEC allocate a bucket of funding to an incentive-based program, and consider how it can implement a program that provides incentive funding through a streamlined application process with standard funding amounts and clear guidelines for eligible funding recipients and technologies.

Challenge Grant: The CEC referenced a plan to issue a challenge grant to bring resources online for summer 2023.[15] Given interconnection queues and other practical hurdles to new deployments within a matter of a few months, the CEC should consider how to use this first round of funding tap into capacity that is already installed but is not operating for grid reliability. Existing batteries at customer sites offer substantial potential capacity.

2. DEBA Eligibility for Residential Storage and SGIP-Eligible Resources

At the workshop, the CEC sought and received input regarding a proposal to make residential storage and resources that are eligible for other state programs, such as SGIP, ineligible for DEBA.[16] Many parties, including CALSSA, recommended against this proposal during the workshop public comment period.

As a general matter, the best approach is not to prohibit participation in DEBA based on eligibility for another program. Instead, it would be better to keep eligibility more open but prohibit dual participation and double compensation.

Making SGIP-eligible resources ineligible would take far too many resources off the table and limit DEBA's effectiveness or narrow the funding recipients to a small subset of potential reliability resources. This is because the great majority of all residential and commercial storage systems in California are effectively eligible for SGIP, as are generating technologies including fuel cells (another resource type specifically mentioned in the DEBA statute).

[15] Workshop Presentation, p. 49.
[16] Workshop Presentation, p. 51.

While resources are eligible, however, SGIP funding is largely unavailable because SGIP energy storage incentives are almost completely exhausted, and many budgets are waitlisted or are "paused" for most general market customers.[17] This means that SGIP-eligible resources largely cannot access SGIP incentives. New funding for the general market residential portion of the program is not included in the Governor's January 2023 budget proposals, and the eligibility guidelines for the low-income residential funding are not yet established.

Furthermore, SGIP incentives for the general market are too low to support deployment, the application process is complex, and funding is uncertain. Consequently, many customers that are eligible for SGIP choose not to even apply for SGIP funding.

For all these reasons, DEBA should not exclude SGIP-eligible technologies, such as BTM energy storage. Rather, a site should be able to obtain either DEBA or SGIP funding, but be disallowed from receiving incentives from both programs.

Similarly, there should be no separate, blanket DEBA ineligibility for residential storage. Residential storage is needed—including to better manage the energy from paired solar systems—but current policy does not support rapid deployment. Not only does SGIP not provide a viable source of funding for most residential storage, but it is difficult for residential storage to participate in DR programs in California.

CALSSA recognizes that administering a program to provide incentives for many residential customer batteries may seem like a daunting task, but there are ways those challenges can be addressed rather than shutting these resources out of DEBA participation. For example, using an aggregator model may simplify awarding and disbursing funds to residential customers, or a third-party administrator could be retained. At the workshop, the CEC said it intends to obtain a third-party administrator to support EM&V and reconciliation to ensure that DEBA-funded assets serve as emergency resources.[18] A third-party administrator could similarly administer a streamlined incentive program in which applicants demonstrate they comply with established eligibility criteria for participants and technology, as discussed above.

3. Non-Performance Penalty and Exceptions

The CEC is proposing that DEBA program design include a repayment penalty for non-performance during events, and asked for input into reasonable exceptions to a non-performance penalty.[19]

CALSSA agrees that accountability is important to program success. For distributed assets required to participate in an emergency reliability program, that companion program may

[17] Self-Generation Incentive Program, Program Metrics, https://www.selfgenca.com/home/program_metrics/, see "Residential Storage Soft Target Cap."
[18] Workshop Presentation, p. 52.
[19] Workshop presentation, pp. 51, 54.

provide for some adjustments to compensation, and that should be taken into account. DEBA can also provide for repayment in the event of a significant amount of non-performance. A resource that fails to perform throughout a program year should face a substantial penalty.

That said, providing for repayment penalties will be challenging in practice, and could significantly limit uptake. For BTM storage, which would participate in a companion program, CALSSA recommends that a DEBA repayment penalty not be imposed for non-performance after the third year after installation.

4. Avoiding RA Interference without Creating Clean Stranded Assets

The CEC workshop presentation asks, "How best can DEBA invest in assets for emergency load reduction without interfering in the Resource Adequacy Program or creating clean stranded assets? How can it best do both?"[20] We believe this is not a great concern for BTM resources.

As mentioned earlier in these comments, the vast majority of RA resources are FTM resources. To the extent that FTM resources are needed for emergency reliability, the CPUC's Integrated Resource Planning proceeding has mechanisms in place to ensure those resources are brought online, and the resources are adequately compensated through the IRP and RA processes. Thus, committing DEBA funding to FTM assets will result in either double payment to assets that were already planned for IRP/RA compliance, or will cannibalize resources away from those programs.

For this reason, DEBA should focus on BTM resources. BTM resources already largely do not participate in IRP/RA procurement and do not implicate the concern about interfering with the RA program.[21] Nevertheless, BTM resources funded by DEBA can and should participate in DSGS or another emergency load reduction program, providing valuable capacity to meet the reliability needs that DEBA and DSGS are meant to address. This contribution can be reflected in the RA planning process as a load reduction that reduces the need for LSEs to buy RA capacity.

To avoid these resources being "stranded" by sitting idle outside emergency events, the CEC can do two things. First, it can provide for an expanded dispatch schedule through DSGS, such as CALSSA proposed by having batteries respond to market-informed signals, which would capture not only emergencies but also conditions of high need where bringing more resources to bear will reduce grid stress and energy costs.[22] Second, event performance for BTM batteries in DSGS should be calculated by using discharge data irrespective of battery discharge on non-event days and should not include baselines. This will enable batteries to cycle regularly during

[20] Workshop presentation, p. 54.
[21] The Public Utilities Commission has not adopted changes in the RA program that would be needed to better accommodate them.
[22] CALSSA's proposal entails dispatch during hours with day-ahead locational market prices at or above $200/MWh. See CALSSA Proposal, p. 7.

non-event days without having compensation reduced during events. Baselines would have the opposite effect of encouraging batteries to sit idle on many days during summer months.

In short, BTM resources are already adept at participating in grid service programs and responding to multiple signals from a program and embedded in rates. They can be relied on to perform during emergencies while also operating for grid benefit at other times.

5. Evaluation criteria input

The CEC proposed evaluation criteria for DEBA projects.[23] Among these proposed criteria, the CEC lists capacity-related considerations. The second consideration, "Maximum hours available for dispatch during peak load events (4-10 pm)," should be modified to recognize the value of resources that can dispatch during critical hours rather than for a maximum number of hours during a 4-10 pm window. First, the period of critical need is typically a much shorter duration, and the CEC should not create a criterion that would undervalue resources that can dispatch during that critical period. Second, prioritizing only resources that provide capacity over a six-hour window will conflict with the goal of developing a diverse portfolio of resources. We recommend that this consideration be modified as follows: "Maximum capacity available for dispatch during critical hours, or capacity available for dispatch during maximum number of hours of peak load events (4-10 pm)."

The evaluation criteria also include cost considerations. To more explicitly incorporate the federal support for clean energy resources provided through the Inflation Reduction Act, we recommend that the second consideration be modified as follows: "Eligible matching funds, other committed project financing, or tax credits."

III. Conclusion

CALSSA appreciates the CEC's concerted and sustained efforts to develop smart programs to build California's reliability resources through the DSGS and DEBA programs. We look forward to continuing to contribute to these efforts in the coming weeks and months, and to BTM storage providing substantial contributions to a clean, reliable grid in the coming years.

Sincerely,

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

[23] Workshop presentation, p. 53.