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## CALSSA DEBA Comments

*Additional submitted attachment is included below.*

August 31, 2023

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

Re: Docket No. 22-RENEW-01—Comments on Draft DEBA Guidelines and August 15, 2023, Workshop

California Energy Commissioners and Staff:

The California Solar & Storage Association (CALSSA) appreciates the work done by the California Energy Commission (CEC) to develop the Distributed Electricity Backup Assets (DEBA) program, and we appreciate the opportunity to submit comments on the proposed draft program guidelines issued on August 11, 2023 (Draft Guidelines), and the workshop held on August 15, 2023.

CALSSA supports the CEC's efforts to develop a program that will accelerate deployment of energy resources that can serve as reliability assets during extreme events, as directed by Assembly Bill 205 (2022). Our comments focus on behind-the-meter battery energy storage resources.[1] We also provide a proposal for an incentive program approach to quickly and efficiently increase deployment of behind-the-meter batteries (BTM) and battery aggregations that would serve as emergency reliability resources as their primary purpose (see section B below).

## A. Comments on Draft Guidelines and Workshop

### 1. Funding Through Incentives Is Preferable to Grant Funding Opportunities for Established Distributed Resources Like Battery Energy Storage

The Draft Guidelines primarily propose awarding DEBA funding through grant funding opportunity (GFO) solicitation processes. Many participants at the workshop and parties submitting prior comments on DEBA funding structures have expressed concern at this

[1] In these comments, we generally refer to the resources that would receive DEBA funding as *resources*, whether these are single-project resources or aggregations of multiple projects, and we use *projects* to refer to projects built at specific sites. See section A.9.a below.

approach and recommended that the CEC instead prioritize funding through an incentive program approach, particularly for BTM storage.[2]

CALSSA strongly recommends that the CEC provide DEBA funding for deployment of new distributed resources through an open incentive approach rather than a GFO approach. While a GFO approach might be appropriate for certain technologies, an incentive approach works well for technologies that are proven, standardized, and able to be deployed at scale to quickly meet the Strategic Reliability Reserve's goal of expanding California's fleet of on-call reliability resources, such as BTM batteries.[3] An open incentive program would provide many benefits over a GFO for both the CEC and energy storage developers. Benefits include reduced administrative timelines, clear expectations established up front, certainty of receiving funds for developers, and more capacity installed and available sooner.

A GFO approach carries several risks and challenges that may make it infeasible or cost-prohibitive for BTM storage resources to participate, despite these resources being ready and able to deploy at scale with appropriate funding support, to provide substantial on-call emergency reliability services.

### *a. Administrative timelines*

Based on CALSSA members' experiences participating in both GFOs and open incentive programs, CALSSA believes that an open incentive program will require less administrative work for both the CEC and program participants.

GFOs require that the CEC develop rules, guidelines, scoring criteria, and other administrative documents for each individual GFO. Once a GFO is released, the CEC must hold a workshop, respond to questions, clarify GFO language, etc.

Potential applicants must then become familiar with each GFO, which could differ from one another, and develop projects that fit the requirements of each GFO.

Once responses are submitted, the CEC must review, score, and rank applications, and issue a notice of proposed award. The CEC then negotiates contract terms and conditions with each

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[2] See CALSSA Comments on January 27, 2023, Workshop on DSGS and DEBA programs, Feb. 17, 2023, TN # 248884, pp. 7-8; Microgrid Resources Coalition Comments on DEBA-DSGS Program Development, Feb. 17, 2023, TN # 248877, pp. 3-4; California Energy Storage Alliance Comments on DEBA & DSGS Workshop, February 17, 2023, TN # 248881, p. 17; Convergent Energy and Power Comments on Distributed Electricity Backup Assets Program Workshop, February 17, 2023, TN # 248861, p. 3.

[3] During the workshop, CEC staff observed that DEBA is not designed to support untested technologies, because resources it funds must be available when called.

funding recipient, which could cause delays or even result in applications being canceled, especially if there are changes to the resource after the contracts have been signed. Also, currently there can be long delays in utilities issuing permission to operate, allowing resources to perform in the program. With the current proposed schedule for GFOs, with applications due in December 2023, it seems unlikely that DEBA-funded resources can be deployed in time to provide emergency reliability support during the summer 2024 season.

Moreover, the CEC and industry must go through this process again for each subsequent GFO, creating a lot of back and forth and ultimately not expediting the process of installing new capacity through the DEBA program.

Conversely, an open incentive program would entail developing program rules, terms and conditions, and requirements only once. After the program is operational, the main administrative task is ensuring that submitted applications have the necessary documents, and informing applicants that their applications have been reviewed for completeness and that funds have been reserved. Application review is a more streamlined and faster process than reviewing, scoring, and ranking GFO submissions.

For applicants, an open incentive process allows more time to evaluate potential projects to include in a DEBA resource and to prepare an application, while also making the process of preparing applications more standardized and straightforward.

Additionally, by signing application forms, applicants are agreeing to the program rules, so there is no need for contract negotiation like for a GFO. No additional contracts or negotiations are needed for funding recipients to begin constructing resources. This approach dramatically decreases the amount of back and forth between the CEC and applicants, reducing the overall administrative time necessary to build new projects.

### *b. Clear expectations and market certainty*

The GFO process does not provide clear program rules and expectations upfront, making it difficult to develop projects beforehand and to prepare for GFOs. Additionally, it is difficult for GFO applicants to provide accurate funding and cost information up front when key details may not be settled or established until after the developer submits the application.

Moreover, once a GFO is released, there is often only a period of several weeks to evaluate whether the GFO presents a viable opportunity to develop resources and prepare an application that is thoughtful and reasonable. This compressed timeline combined with the lack of certainty can lead developers to submit less-viable projects in an effort to get a GFO award but then be unable to complete the contracting phase and move forward with implementation. Thus, a GFO can lead to greater project attrition and, potentially, stranded funds.

In contrast, an open incentive structure establishes program rules and expectations in advance. This gives project developers a clearer understanding of what types of projects, operational requirements, customers, etc., they should pursue.

Clear expectations, including for funding levels and incentive amounts, in an open incentive program create greater market certainty by letting developers know in advance what incentives they will receive if they develop resources that meet program rules. Projects can be developed with much higher confidence, and customers can have greater certainty of receiving incentive funds as well. This causes developers to focus on projects and customers that they are more certain will meet program goals and requirements.

### *c. More capacity installed sooner*

Open incentive programs provide funds on an ongoing basis and avoid the start/stop cycles created by GFO funds being available only in discrete windows. With less administrative time, clearer expectations upfront, and greater certainty in receiving funds, more projects will be installed at a faster rate with an open incentive program than through the GFO process.

## 2. For Batteries and Similar Resources, a Fixed Incentive Amount Is Best

The proposed DEBA payment structure for distributed resources presented in the workshop contemplates awarding funds based on a percentage of total project costs. For technologies that are established and standardized, CALSSA recommends that the CEC instead set a fixed amount of funding to be provided for DEBA-funded resources. For example, a fixed incentive amount in terms of $/kWh or $/kW with scaling by resource duration would be appropriate for battery storage.[4] As described in more detail in section A.4, CALSSA proposes that BTM batteries have an incentive of $500/kWh of nominated capacity.

Given that total project costs are unknown upfront, it is difficult to reserve program funds accurately upfront if incentives are based on future costs. Conversely, fixed incentive amounts allow funding to be reserved with higher accuracy and confidence as incentives are tied to a set number. This helps with program administration and funding certainty.

[4] Battery storage is different from many of the other resources listed as examples of eligible technologies in the Draft Guidelines, because it is not a generation resource. Some of the generation options listed may also be more appropriately funded through fixed incentives, while others will likely require much longer development time, and some may need to undergo environmental review. Vehicle-to-grid integration is more similar to stationary battery storage and would likely also be more appropriately funded through fixed incentive levels.

Providing funding based on total project costs will also encourage higher spending on resources, whereas fixed incentives will encourage lower spending, increasing program efficiency.

### 3. DEBA Can Support Storage Deployment for Reliability Purposes, Unlike Existing Programs

At the workshop, CEC staff solicited information about gaps in existing programs, including in the Self-Generation Incentive Program (SGIP).

SGIP funding is largely unavailable in most of its budget categories and program administrator territories. Most SGIP incentive budgets for residential and non-residential customers are nearly exhausted,[5] waitlisted, or paused.[6] This means that SGIP-eligible resources largely cannot access SGIP incentives.

The Legislature contemplated a new source of funding for residential storage in SGIP through AB 209 in 2022, and $280 million was appropriated in 2023. However, that funding will be available only for eligible low-income residential customers.[7] Thus, non-residential customers and general market residential funds are not receiving additional incentives through SGIP at this time.

More to the point, SGIP is focused primarily on technology deployment rather than overall system reliability. California currently has no incentive program in place for deploying new

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[5] Beginning in 2020, SGIP focused primarily on equity projects, with 63% of the total SGIP budget allocated to the equity resiliency budget category. Remaining funding for storage as of October 2022 included $8.7 million for large-scale storage, $4.2 million for small residential storage, and about $22 million for the three equity-related storage budgets. See California Public Utilities Commission, Assigned Commissioner's Ruling Seeking Comments on Improving Self-Generation Incentive Program Equity Outcomes and Assembly Bill 209 Implementation, October 26, 2022, https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M497/K964/497964271.PDF, pp. 3-4.

[6] Residential storage application acceptance is paused for general market residential customers who do not live in a Tier 2 or Tier 3 high fire threat district or who have not had their electricity turned off in two or more Public Safety Power Shutoff (PSPS) events, after reservation requests reach 50% of the applicable program administrator's available funds for that incentive step. See https://www.selfgenca.com/home/program_metrics/.

[7] See California Public Utilities Commission, Administrative Law Judge's Ruling Seeking Additional Comments on Assembly Bill 209 Implementation and Other Self-Generation Incentive Program Improvements, July 12, 2023, https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M513/K886/513886935.PDF, pages 2-3.

resources to serve as grid reliability resources as envisioned for DEBA. While SGIP has "performance-based incentives," performance is not tied to dispatching the battery during emergency events. Thus, DEBA will fill a critical role not currently met through other DER incentive programs by providing incentives for projects that are used to meet system reliability needs.

### 4. Recommendations Regarding Payment Structure and Related Considerations

In the workshop, CEC staff presented a proposed DEBA payment structure for distributed resources and solicited feedback on whether that structure is effective and adequate to spur development of a project and ensure participation during an emergency event. These comments address the specifics of the proposed payment structure and related considerations, and apply whether funding is awarded through an open incentive approach or a GFO approach.

**First,** DEBA funding must be reserved in advance for each recipient. Without a reservation system that ensures funding will be available, there will be such great uncertainty that resource development will be severely inhibited.

**Second,** as discussed above, basing funding levels on a percent of total project costs may lead to higher project costs than basing funding on a fixed incentive level. While a percent-of-costs approach may be appropriate for some technologies, for technologies for which cost data is available, the CEC should consider setting funding levels rather than having the funding vary based on a specific project's costs. CALSSA proposes that BTM batteries receive a fixed incentive amount of $500/kWh of nominated storage capacity, with "nominated capacity" being the amount of power and energy of the battery that will be made available to emergency response events. According to SGIP data, BTM battery costs for projects that applied to SGIP in 2020 through 2022 averaged nearly $1,000/kWh.[8] Thus, $500/kWh would cover roughly half[9] of project costs, as envisioned by the CEC according to the workshop presentation.

**Third,** the upfront portion of the DEBA award must be substantially higher than the proposed 25% of total funding (which would be 12.5% of total project costs in the CEC's proposed payment structure). At least 50% of DEBA funding should be provided up front. Funding up front is key to securing financing for projects at the lowest possible cost. If the majority of

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[8] Data found in "Weekly Statewide Report" under the "Reports" tab at https://www.selfgenca.com/home/resources/. Accessed August 24, 2023. This is an average across all customer segments. Costs are higher for residential batteries than for non-residential batteries.

[9] Depending on the level of nominated capacity, the incentive would cover up to but not more than half of total system costs at $500/kWh.

incentive funds will not be received until several years after a project is operational, financing will be more difficult to obtain. Additionally, with a greater portion of a project that must be financed, the cost of financing will be higher. Thus, having more DEBA funding provided up front reduces the total cost of financing and will help make DEBA funding go further.

Having up to 50% of the DEBA funding disbursed over 5 years is sufficient to ensure that resources will participate over the 5-year term. Project developers rely on all funding to make a project's economics viable. This means that the funding that is contingent on performance is an essential element of the total economic viability, and project developers and operators are incentivized to meet performance requirements to receive full payment. There is no need to have more than 50% of funding paid over the 5-year term or be contingent on performance to ensure emergency performance.

Additionally, the proposed payment structure should have the same 50% level of funding disbursed up front for distributed resources as the CEC proposes for bulk grid assets.

**Fourth,** we recommend that for the portion of DEBA funding that is paid over 5 years, the program include rules for how payments are to be reduced in the event of a shortfall in performance. Our proposal presents two approaches that could be adopted (see section B.4 below for more information on these approaches).

The first approach could be applied to most performance requirements and involves reducing the year's award amount using a proration formula. The advantage of prorating the payment with performance is that it provides a strong incentive for performing at the nominated capacity while providing some flexibility for unforeseen and unavoidable circumstances. A variety of factors, such as system maintenance, wi-fi connectivity, and software glitches or updates, could cause a system to perform near but not at 100% of its nominated capacity. Providing for some flexibility while still expecting resources to perform will make the program less risky to participate in and will ultimately encourage greater participation.

The second approach, applicable to CALSSA's proposal for a performance option modeled on the Demand Side Grid Support (DSGS) Program Option 3's market-price-based dispatch signals, pays contingent funding based on capacity provided during the 5-year program term.

**Fifth,** performance obligations should be imposed on the funding recipient, whether the recipient's resource is an individual project or an aggregation. If the funding recipient's resource does not meet performance requirements for a given year, a reduction in that year's funding allocation would apply to the recipient. If the recipient is an aggregating entity, the recipient should have discretion to determine how to then allocate any reductions to participating assets or customers.

## 5. Recommendations and Considerations for Program Design

The Draft Guidelines do not resolve many important elements of the program design. The CEC should consider these recommendations for the DEBA program. Many of these recommendations apply regardless of whether funding is disbursed through GFOs or an incentive approach.

Where possible, CALSSA recommends that program design elements be included in the guidelines rather than waiting to include them in GFOs, to provide more time to evaluate the program and offer greater certainty for those who may consider applying for funding through a GFO. This is particularly true for elements like the performance requirements that funding recipients will need to comply with.

### *a. Funding availability*

First, open funding availability will drive success of the program. CALSSA recommends an open incentive program with funding available on a rolling basis rather than within a limited application window. This will avoid starts and stops and help accelerate deployment.

As a further consideration, the CEC should guard against having large-scale applications that reserve large amounts of funding in a short application window to get their foot in the door, without the ability to fully develop their proposed resources. That could lead to reserved funding getting released later in the process when projects do not go forward, or, if funding is based on a percentage of project costs, when cost estimates are adjusted.

### *b. Minimum size*

A DEBA-funded resource should be at least 100 kW, to reduce administrative burdens and to facilitate resources' participation during grid emergency events. This will enable smaller projects, such as residential battery systems, to participate through aggregated resources.

The 100 kW size minimum should be a measure of installed capacity, i.e., the total nominal power rating. This is consistent with the approach in DSGS Option 3, which sets a total minimum nominal power rating of 100 kW for aggregations within a single publicly owned utility or community choice aggregator.[10]

Program performance should be measured at the resource level, including for aggregated resources, rather than at the level of individual projects that participate in an aggregation.

[10] Demand Side Grid Support (DSGS) Program Guidelines, Second Edition, July 2023, p. 22.

### *c. Eligible costs*

In the workshop, the CEC solicited feedback on what costs should be considered eligible for DEBA funding. The SGIP program has a list of eligible project costs that can be used.[11]

Where funding is based on a percentage of total project costs, we recommend that the CEC set caps on the total eligible costs for a resource.

### *d. Timing of identification of customers and control of sites*

For aggregations, the applicant should not be required to identify specific customers/sites or demonstrate control of sites or assets at the time of applying for funding. Attracting customers is extremely challenging when funding is not assured, so requiring customer identification or control in advance will add too much time, complexity, and uncertainty, and can lead to customer confusion and dissatisfaction and depress enrollment and deployment. This is particularly true for aggregations with residential customers.

A funding application should include the current status of customer/site acquisition and the plan and timeline for completing the process of recruiting specific projects into the resource. All customer projects developed for a specific application should be located within a single utility distribution company (UDC) service territory.

Although the program should not require aggregators to identify customers in advance of applying, resources that consist of aggregated projects should be allowed to include projects that have interconnected before an application is submitted or funding is awarded. That will allow aggregators to begin recruiting customers and developing projects before an award, for greater efficiency.

Draft Guidelines Table 3, Screening Criteria, should be updated to reflect that applications are not required to identify all projects and sites or demonstrate site control at the time of application.

Once funding is reserved or awarded, aggregators can invest in customer recruitment with greater certainty, to reach the capacity committed to the program. Before the upfront incentive is disbursed, the aggregator should be required to submit to the CEC assurance that customers have entered into an agreement with the aggregator detailing the program participation and provide the project-specific committed capacity, or other information that the CEC considers appropriate. A time limit, such as two years, could be included for an aggregator to meet the 100 kW minimum resource size.

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[11] See Self-Generation Incentive Program Handbook, June 28, 2023, pp. 29-30.

### *e. Performance requirements*

As noted above, it is extremely important to provide clarity regarding the performance requirements and measurement methods, ideally through the guidelines rather than being deferred to GFOs. Because ongoing funding disbursements rely on how performance is determined, potential applicants need sufficient time to assess the program requirements and evaluate whether to apply.

DEBA should provide optionality in how participants provide ongoing emergency reliability performance.

First, resources should be allowed to satisfy performance requirements through verified enrollment in an emergency response program such as DSGS or the Emergency Load Reduction Program (ELRP), or another program approved by the CEC. The resource must provide the amount of capacity for which it received DEBA funding.

Second, DEBA should provide another pathway for resources to perform during extreme events if the resources are not participating in an emergency program. Any alternative method should hew closely to existing programs to avoid needing to evaluate yet another program offering.

We propose two additional optional pathways for performance in section B.4 below. The first of those is through day-ahead CAISO Energy Emergency Alert (EEA) signals. We recommend day-ahead alerts because the day-ahead signal will allow time to ensure the battery resource has sufficient charge to meet the performance commitment. The second is through the operational requirements currently in place for DSGS Option 3, which uses day-ahead CAISO market prices as dispatch triggers.

The guidelines should specify the expected and maximum duration of dispatch within the specified dispatch window, as well as the expected and maximum number of dispatch events during a season. The rules should not require a resource to dispatch at the committed capacity across the entire dispatch window. Instead, the rules should allow for resources to deliver higher capacity over a shorter period, as that will better serve grid needs during extreme events.

We recommend a dispatch window of 4 pm-9 pm, the dispatch window in DSGS Option 3,[12] which is designed for BTM batteries. For BTM resources, it is important for a program to have defined event hours to allow developers to calculate project economics. If the hours are not defined, the impact on customer bill savings cannot be determined, making the project economics uncertain. Additionally, 4 pm-9 pm coincides with the most common peak period for time of use rates.

[12] DSGS Guidelines, Chapter 5, Section D, p. 23.

### *f. Performance measurement*

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. These resources' performance should not be measured at the site level, and their performance should not be based on baselines or counterfactuals. Batteries are a good example of this type of resource.

Measuring performance based on actual discharge will encourage DEBA-funded batteries to not only deliver maximum capacity during extreme events but also to cycle on non-event days throughout the year to make the resources more useful and add grid value. Baselines would have the opposite effect of encouraging batteries to sit idle on many days during summer months.

One reason DEBA-funded resources should not be measured against a baseline is that as new resources, they should be considered fully incremental. This and other reasons for not measuring battery performance using baselines are provided in CALSSA's DEBA/DSGS revised proposal submitted on March 24, 2023.[13]

### *g. Participation in other programs*

Resources funded through DEBA should be able to participate in other programs as long as that participation does not interfere with the resource meeting the DEBA performance requirements. Measurement and verification methods can be developed to demonstrate DEBA performance and to ensure there are no program conflicts for resources enrolled in multiple programs.

### *h. Incentive assignability*

The program guidelines should provide that the DEBA payments are assignable so that an entity other than the original recipient can receive funds over the 5-year term in the event of a change in ownership or financing arrangements. This is done in SGIP for performance-based incentives.

[13] CALSSA DEBA/DSGS revised proposal, March 24, 2023, TN # 249422 (CALSSA Revised Proposal), pp. 14-15.

## 6. Recommendations for a Distributed Resources GFO

As stated before, CALSSA recommends that the CEC use an incentive approach instead of a GFO approach for distributed resources. If the CEC pursues a GFO for distributed resources, then we offer the following recommendations.

First, CALSSA supports treating the GFO as a challenge grant and providing $50 million in funding through that challenge grant, as the CEC proposed in the workshop on January 27, 2023.

Second, any GFO for distributed resources should address the considerations discussed in these comments, particularly in sections A.4 and 5. In particular, aggregations should explicitly be eligible for all GFOs for distributed resources.

Third, with a GFO approach, the CEC should provide as much information as possible in advance of releasing any GFOs, such as performance requirements and more detailed scoring criteria. Fourth, if the CEC issues revised guidelines for approval with only GFO funding planned and no incentive program—as contemplated on page 37 of the workshop presentation (target timetable)—then the revised guidelines should state that the CEC will revise the guidelines in fall/winter 2023-2024 to refine the program, and that an incentive program will be included in those revised guidelines.

## 7. Responses to Questions for Feedback re GFO Responses and Federal Tax Incentives

### *a. Timing of GFO responses*

At the workshop, the CEC asked how much time organizations and entities need to respond to a GFO. The question does not have a simple answer because the time required varies greatly depending on the complexity and requirements of the GFO. CALSSA offers the following considerations.

Preparing an application in response to a GFO is a significant undertaking that requires a large investment of time and resources. If a GFO requires applicants to make legal representations, consulting with legal counsel and potentially with partner businesses and suppliers will take additional time. It will also take significantly longer if a GFO requires an applicant to identify customers before applying, to obtain customer signatures, to obtain site control, or to complete interconnection agreements.

To streamline the application process, avoid imposing requirements such as these.

### *b. Federal tax incentives*

Customer-sited battery energy storage systems are generally eligible for the federal investment tax credit, so CALSSA supports the CEC's proposed funding level of roughly 50% of total costs, which is approximately $500/kWh, on average, for BTM batteries (see section A.4 above).

## 8. Funding Allocations

The Draft Guidelines anticipate allocating up to $100 million in existing DEBA funding to build grid assets and up to $445 million to distributed resources. CALSSA supports this allocation. A footnote on page 3 of the Draft Guidelines states that the funding allocation for distributed resources "includes CEC administrative costs and funding to be used in the Climate Heat Impact Response Program." It is not clear whether the reference to CEC administrative costs is limited to CHIRP or is broader. Revised guidelines should clarify that this does not mean CEC costs to administer funding for bulk grid assets will be paid from the distributed resources allocation.

The Draft Guidelines propose awarding at least 25% of all DEBA funding to projects located in publicly owned utility territories and at least 25% of distributed resources funding to projects located in or benefiting disadvantaged communities. Greater clarity regarding how these allocations will be accomplished would be useful. For example, will funding be awarded to applications that meet these criteria before other applications are reviewed? Will the 25% allocation for publicly owned utilities be determined separately for bulk grid assets and distributed resources? Also, the CEC should consider also ensuring that an appropriate portion of bulk grid funding that supports clean back-up generation or storage at existing power generators will benefit disadvantaged communities.

## 9. Recommendations for Guidelines Terminology, Definitions, and Project Evaluation and Screening Provisions

### *a. Clarifying terminology and definitions*

In revised guidelines, we recommend that the CEC clarify terminology and roles in Draft Guidelines Chapter 2, Section B, Project Evaluation and Administrative Screening, and in the Glossary.

Each application should be for a *resource* or a *project.* The CEC currently uses *project* for a DEBA-funded resource, but CALSSA suggests the CEC consider replacing *project* with *resource* for the DEBA funded technology that provides emergency reliability service, whether it is a

single project or a portfolio or aggregation of projects.[14] Whichever term is used, the revised guidelines should reflect that a resource can be located at one or more sites, and that a single project may include more than one asset.

For greater clarity, the revised guidelines should use *funding recipient* instead of *grant recipient* for an entity that is approved to receive DEBA funding, to remain neutral to funding mechanisms. Additionally, the revised guidelines should not distinguish between entities that own sites or assets or that operate the assets making up a resource.

The Glossary (Draft Guidelines pages 15-16) includes definitions of *project* and *grant recipient* that should be changed consistent with these recommendations, for example as follows:

"~~Project~~ *Resource*: A technology or a portfolio of technologies installed to provide emergency electricity supply or load reduction that is contained in a ~~grant~~ *DEBA funding* application."

"~~Grant~~ *Funding* recipient: ~~Those that receive~~ *An entity that receives* an award under the DEBA Program"

or

"Grant recipient: ~~Those that receive~~ *An entity that receives* an award under ~~the DEBA Program~~ *a DEBA Program GFO*"

The definition of *load reduction* should not be limited to decreases in demand as measured at the customer-site level relative to a baseline, to provide flexibility for the program to include demand-side resources without requiring a resource's performance to be measured at the site level and to allow for circumstances in which a baseline is not used. We recommend removing *load reduction* from the Glossary—noting that DEBA requires distributed energy assets to serve either as emergency supply or load reduction, but the Glossary does not include a definition of *emergency supply*—or changing the first sentence of the definition to "A decrease in electric demand as measured at ~~a customer site relative to a counterfactual baseline~~ *the device causing the decrease in demand or at a customer site where the device is located*."[15]

[14] This would be compatible with the terminology used by the CAISO, in which energy resources that are dispatched in the market are referred to as *resources*.

[15] See also section X above, recommending that the revised guidelines (and any GFOs for distributed resources) clarify that for resources that can be directly metered, performance should be based on the resource's direct metered output.

### *b. Evaluation criteria*

Table 5 in the Draft Guidelines provides example technical scoring criteria for distributed resources. CALSSA offers the following recommendations.

Section 2 of the table refers to the loading order. This and any other references to the loading order in revised DEBA guidelines should reflect that batteries are included as demand-response resources. This will mirror the approach in the DSGS Guidelines.[16]

The evaluation criteria should also be revised to clarify requirements for capacity and availability (Table 5, Section 4). The current wording, "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 pm-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 6-hour window will conflict with the goal of developing a diverse portfolio of resources.

The scoring criteria should also allow for flexibility for a virtual power plant aggregation that can grow over time. Evaluation of capacity and project completion date should account for this ramping ability.

The availability of federal funding should not be a consideration under Cost. DEBA funding decisions should be made independently of whether federal funding is available.

Under Resiliency Co-benefits, the criteria should also consider the resiliency benefit of electric vehicle charging infrastructure that is co-sited with battery storage, which not only acts as a grid asset but also provides resiliency for infrastructure including maintaining mobility.

For Resource Portfolio Diversity, the evaluation should consider the importance of diverse resources in the sense of addressing different grid needs and being sited in different grid locations (e.g., on the distribution grid and at customer premises), while focusing funding on technologies that are known as reliable sources of energy, especially during emergency events.

[16] DSGS Guidelines, Chapter 3, Section D, Dispatch Loading Order, p. 12.

## B. Proposal for Open Incentive Program for Batteries and Battery Aggregations

CALSSA proposes the following program structure for distributed batteries and battery aggregations funded through the DEBA program. While this structure may be appropriate for other technologies also funded through DEBA, we focus on BTM batteries only.

### 1. Application Framework

DEBA will accept applications on an ongoing basis. The CEC would make all program rules and requirements known upfront, and developers will submit applications on a rolling basis while DEBA funds remain available. When a resource applies, the CEC will reserve funds for that resource and will then use those funds to pay the resource upon deployment and meeting its annual performance requirements.

Once program funds are fully reserved, new applications will be placed on a waitlist. Waitlisted applications will be funded in the order in which they were received if funds become available (through project attrition or budget increase). When all program funds are fully exhausted (i.e., all funds are paid out after project completion and through performance payments), the CEC will stop accepting new applications.

Once a resource applies and funds are reserved, the resource can increase its nominated capacity and receive additional incentives for the increased nominated capacity only if program funds are still available. If no funds are available, a resource cannot receive additional incentives for increased nominated capacity.

Once a resource applies and funds are reserved, it can decrease its nominated capacity and receive a smaller incentive amount, and the incentives for the reduced nominated capacity will be put back into the program budget.

### 2. Resource Size

Resources must be 100 kW or greater in total minimum nominal power. A *resource* can consist of a single project or multiple projects aggregated to be 100 kW or greater. Project sites within a single aggregation must be located in the same utility distribution company (UDC) service territory.

A resource that meets the 100 kW minimum would not be required to operate separately, and instead, resources could be operated together as a single larger aggregation within a specific UDC territory. This will allow for greater efficiency of operation.

### 3. Incentive Structure

Incentives for BTM will be set at $500/kWh of nominated capacity. According to SGIP data, BTM battery total system costs average around $1,000/kWh,[17] making $500/kWh approximately equivalent to 50% of project costs.

CALSSA proposes that the incentive be based on nominated capacity rather than nameplate capacity so that only the portion of the resource used for emergency response events is being funded through the program. *Nominated capacity* is defined as the portion of the battery power (kW) and energy (kWh) that a resource will make available for emergency response events. A resource can nominate up to 100% of its nameplate capacity to be available. Nominated capacities must be in either 2-hour, 3-hour, or 4-hour increments to fit in with performance requirements.

*Example*:

> A 1,000 kW, 2,000 kWh resource nominates 800 kW, 1,600 kWh of the battery power and energy to be available for emergency response events at the upfront incentive stage. The total eligible incentive would be:
>
> $500/kWh * 1,600 kWh = $800,000

CALSSA proposes that 50% of the overall payment be paid out when the resource has received permission to operate (PTO), and the remaining 50% be paid out over a 5-year period, up to 10% of the total payment each year, as described in more detail in the following section. Using the same system sizes from the above example, the incentive would be divided as follows:

> $400,000 paid upon PTO
> $80,000 each year for 5 years

### 4. Performance Payment Structure

Performance incentives will be paid out annually based on resource performance in emergency response events. Resources will have two options in meeting performance requirements:

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[17] "Weekly Statewide Report" found under the "Reports" tab at https://www.selfgenca.com/home/resources/. Accessed August 24, 2023. Average system cost was calculated from total eligible cost data for SGIP projects that applied in program years 2020 through 2022. The average cost is across customer segments. Costs are higher for residential battery systems, and the CEC may wish to consider providing a higher level of DEBA funding for residential batteries.

### *a. Option 1: Participate in Approved Emergency Response Program*

Resources that participate in CEC-approved emergency response programs meet the DEBA performance requirement. These programs could include DSGS, ELRP, base-interruptible program (BIP), or others as approved by the CEC.

To receive the full annual DEBA performance incentive payment for a given year, the resource must demonstrate that it provided an average of 100% of its nominated capacity during a given program year. Overperformance during program events should be included in the calculation of a year's average performance.

For average performance below 100%, that year's funding payment will be prorated. CALSSA recommends that the amount of the reduction in funding be equal to the average amount of reduced performance if the resource delivers an average of between 90% and 100% of nominated capacity during a program year, and that funding be reduced by a factor of 1.5 for average performance below 90% of the nominated capacity. For example, a resource delivering an average of 95% of nominated capacity in a program year would receive 95% of that year's funding allocation, and a resource delivering an average of 80% of nominated capacity would receive 75% of that year's allocation. The payment could be reduced to zero, but the participant would not be required to pay a penalty for a shortfall below 30%.

### *b. Option 2: Follow Operational Requirements for DEBA*

Resources can follow one of two proposed sets of operational requirements, one based on CAISO EEA alerts, and one based on DSGS Option 3, to meet their performance requirement.

Resources following either set of operational requirements will measure performance at the battery meter and will not use baselines, given that these are new, incremental resources not funded through SGIP. Exports to the grid count toward resource performance where allowed by a project's interconnection agreement.

**EEA Alerts:**

Resources must dispatch in response to CAISO day-ahead EEA alerts at the Watch or higher level, within the program event window, 4 pm-9 pm, 7 days per week.

Annual funding amounts would be prorated using the same approach described above for the option of participating in an approved emergency response program.

**DSGS Option 3:**

A resource's nominated capacity will determine which duration it will follow (i.e., 2-hour, 3-hour, or 4-hour). The resource's total performance payment is divided into annual performance

payments, and those annual performance payments are then converted into monthly capacity payments that mirror DSGS Option 3 payments, as follows:

1. The annual performance payment is calculated by dividing the total performance payment by 5.
2. Monthly capacity payments are calculated by multiplying the annual performance payment by the following factors for each month and are then divided by the nominated power capacity (kW):

    May: 0.1087
    June: 0.1123
    July: 0.2029
    August: 0.2174
    September: 0.2319
    October: 0.1268

*Example:*

800 kW, 1,600 kWh nominated capacity
$800,000 Total Incentive
$400,000 Upfront Incentive
$400,000 Performance Payment

Performance Payment:
Annual Payment: $400,000/5 = $80,000
Monthly Incentive Amounts (Multiply the Annual Payment by each Monthly Factor):
May: $8,695.65
June: $8,985.51
July: $16,231.88
August: $17,391.30
September: $18550.72
October: $10,144.93

Monthly $/kW (Monthly Incentive Amount divided by 800 kW)
May: $10.87
June: $11.23
July: $20.29
August: $21.74
September: $23.19
October: $12.68

A resource could not receive more performance payment than it reserves when applying, but a resource can recoup payments from one month or year to another. For example, if a resource misses some of its performance payment in one month or year due to underperformance, it can overperform in subsequent months or years to recoup the amount missed due to underperformance.

## C. Conclusion

CALSSA applauds the CEC for its vision and diligence in developing the DEBA program and its leadership role in driving toward California's clean, reliable energy future. We look forward to contributing to the development of the DEBA program and to playing a role in realizing that future. BTM storage offers important emergency reliability benefits as well as several co-benefits such as resiliency, regular load shifting and demand management, and integration of renewable solar energy. We are eager to ensure that these BTM storage resources can provide maximum value to California's energy system.

Sincerely,

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