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Microgrid Resources Coalition Comments on DEBA-DSGS Program Development

Additional submitted attachment is included below.

February 17, 2023

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

RE: Docket 22-RENEW-01 Microgrid Resources Coalition Comments on Reliability Reserve Incentive Programs Workshop on DSGS-DEBA Development

I. Introduction

The Microgrid Resources Coalition ("MRC") is a consortium of leading microgrid owners, operators, developers, suppliers, and investors formed to advance microgrids through advocacy for laws, regulations and tariffs that support their access to markets, compensate them for their services, and provide a level playing field for their deployment and operations. The mission of the MRC is to promote microgrids as energy resources by advocating for policy and regulatory reforms that recognize and appropriately value the services that microgrids offer, while assuring non-discriminatory access to the grid for various microgrid configurations and business models. We generally support disaggregated, fair pricing for well-defined services both from the grid to microgrids as well as from microgrids to the grid. We promote community-based resilience standards and support utilities that are working toward new business models that value resilient distributed resources. We work for the empowerment of energy customers and communities.

The MRC respectfully submits these comments on the Demand Side Grid Support ("DSGS") and Distributed Electricity Backup Assets ("DEBA") programs pursuant to AB 205. The MRC greatly appreciates that microgrids are explicitly eligible for funding under DEBA and thanks the California Energy Commission ("Commission") for recognizing the values and benefits that microgrids can provide to improve the reliability of California's energy system. Our recommendations on DEBA program development focus on practical approaches for incentive program design that will achieve the rapid, scalable, cost-effective, and successful deployment of firm clean energy assets that California needs to enhance electric system reliability and mitigate power outage risk now and in the future.

II. Comments on the DEBA Preliminary Investment Plan

The DEBA provisions of AB 205 direct the Commission to develop a customer incentive program to *"incentivize the construction of cleaner and more efficient distributed energy assets that would serve as on-call emergency supply or load reduction for the state's electrical grid during extreme events."* AB 205 goes on to state that the Commission could provide funding for the *"deployment of new zero- or low-emission technologies, including but not limited to, fuel cells or energy storage, at existing or new facilities."*

The statutory intent of AB 205 and the creation of the DEBA program is clearly to provide incentives for the deployment of proven, commercially available, cost-effective, clean energy technologies that can provide energy supply and/or load reduction promptly. To meet this goal, assets developed under this program should be constructed where there is high energy demand and customer load that can be directly reduced with these clean technologies. This strongly suggests that the focus of the program should be on customer sites and facilities, and it also aligns with the intent of DSGS as a compensation mechanism for customer load reduction. Thus, one can reasonably conclude that DEBA is intended to be a customer-

focused program that incentivizes the deployment of commercially available assets constructed at customer sites in a distributed fashion and interconnected on the distribution grid to provide reliability services during extreme events. Moreover, if these projects are developed as microgrids they provide local resilience as well as enhancing electric system reliability.

Prioritize distributed resources over bulk grid assets

Based on the legislative intent and statutory directives outlined in AB 205, the MRC strongly encourages the Commission to prioritize distributed energy resources ("DERs") over other investments in the DEBA program rollout. The Commission should focus on designing the program in a manner that maximizes the value of new distributed clean energy assets deployed across the state. This value should not myopically focus on megawatt quantities, but instead consider how investments can meet emergency needs as well as better enable the energy system to meet the broad range of challenges it faces because of climate change, electrification, and aging infrastructure. It is equally important that the Commission act in the most expeditious timeframe possible to meet system reliability needs, to minimize the very high risk of disruption this year and in the near term.

DERs can be developed and interconnected much more quickly and cost-effectively than bulk grid assets, whether in generation supply or in transmission and distribution. New resources are generally easier to develop than retrofits, and retrofits will generally involve fossil fuel assets. Design and implementation of retrofit projects of this nature is time consuming due to the level of customization and retooling required for each facility to be upgraded and re-energized. Incentivizing customer deployments of new DERs and microgrids in many locations across the state through this program will enable California to achieve its reliability goals much faster than bulk grid retrofits.

The Strategic Reliability Reserve has $3.4 billion in funding with $2.4 billion going to strategic reliability infrastructure assets already. The $150 million proposed allocation for bulk grid upgrades is, by definition, not "distributed". Those would be considered "centralized" assets and there is more than enough funding in the general Strategic Reliability Reserve for those investments. The Clean Energy Reliability Investment Plan ("CERIP") will also be supporting the deployment of bulk grid resources with long lead times. Moreover, because AB 205 explicitly limits the Commission's ability to deploy bulk grid supply to existing power generation sites, those additional supply resources will likely exacerbate, rather than relieve, transmission and distribution system constraints – further increasing overall stress on the system. It would therefore be unnecessary and imprudent to allocate substantial funding from DEBA to bulk grid resources when there is so much other funding available through the Strategic Reliability Reserve and CERIP to meet those needs, and relatively few other sources to leverage the power and quick deployment capabilities of DERs to help meet urgent needs.

$150 million can support installation of significant quantities of DERs in communities across California that can not only help reduce demand on the system quickly, but address local reliability needs, better ensure communities have a reliable and resilient energy supply and promote other Commission policy objectives. Those funds would represent a meaningful addition to the overall distributed assets program budget. While the MRC is grateful for the allocation of $500 million, the funding will go very quickly if the program is properly designed. Customers and communities want to make investments in clean and reliable DERs like microgrids, rather than the stand-alone backup diesel generators that have unfortunately been the main choice for customers thus far. Customers are eager for a program like DEBA to provide regulatory certainty and some financial support to help them move forward with projects that can meet both community clean energy and grid reliability needs.

The Commission should strongly consider reallocating the funding proposed for bulk grid investments to distributed assets and using the full amount to launch DEBA for DERs. A $650 million program to fund new DERs would also have much larger impact than that figure alone might suggest, as it would be augmented by leveraging new federal tax incentives and other available private investment, which would even more rapidly reduce system load and enhance the resilience of communities across the state. At the very least, the Commission should prioritize the funding rollout and deployment of distributed resources first, instead of focusing on existing capacity additions at centralized power plants.

Focus on developing a program that can scale quickly, not grants or funding challenges

The MRC strongly encourages the Commission to develop the DEBA program in a manner that scales quickly, enables a wide range of customers to participate, and brings reliability resources to bear quickly without excessive administrative burden. The legislature clearly intends that the Commission create a program to incentivize customers to deploy commercially available clean energy technologies that can provide reliability services to the electric system when called upon.

The MRC suggests that the most straightforward way to implement DEBA to fully comply with the statute is to create a value stack capacity incentive program using a two-part payment structure, comprised of an annual capacity payment (or, alternatively, a single upfront payment) plus adders to incentivize deployment of resources offering co-benefits or attributes that address broader reliability and resilience concerns, environmental and social objectives, and other policy goals. This will give customers the incentive to invest in the DER choices that offer the greatest benefits, through a clear, dependable price signal that drives funding into the types of projects that create the most value while simultaneously reducing system load. program rules. We view this as separate from demand flexibility rates being developed by the CPUC pursuant to the Commissions Load Management standards, as it provides a firm commitment by new DERs to deliver emergency situations to be defined by the program. This is an emergency capacity payment, not an energy payment.

By contrast, we suggest grant funding opportunities and "challenges" are best reserved for research and development of new technologies or for piloting demonstration projects and technologies that are not yet commercially available in the market and need proof-of-concept. These grant-making processes are often very administratively intensive and time-consuming for applicants, and limit participation to those that have the time and means to go through the full process and bear the risk of winning or losing. The grant making approach, without extensive administrative burden to create balance and ensure otherwise, tends to be inherently inequitable and to leave out many customers and communities that are not able to dedicate the time or level of resources necessary to "win" a grant or funding challenge. The MRC encourages the Commission to create a program for commercially available DERs that can demonstrably provide the reliability services called for by AB 205 rather than create grant challenges not contemplated in the legislation nor appropriate for incentivizing rapid, wide-scale deployments of commercially available technologies.

California needs reliability resources now. The microgrid market is ready to provide the relief sought by AB 205, while simultaneously creating a robust infrastructure that will offer broad reliability, resilience and policy benefits that include, but also extend beyond, addressing short-term emergency events. The DEBA resources that are listed as eligible for funding, such as microgrids and other clean DERs, are available off the shelf to provide needed reliability services if the program and market signals are set up for immediate customer participation and construction of these distributed assets. There is no need to conduct a challenge or limit DEBA to those customers that can apply for grants. Instead of proposing to spend $50 million on internal administrative costs, the Commission should create a single robust program that is more

widely available to customers to incentivize new DER project development. This will help meet the immediate reliability needs of the state without further delay. Put the money into load reducing resources, not unnecessary administrative costs.

Coordination with other programs

The Commission proposed that certain resources be ineligible for DEBA if they are eligible for other incentive programs, such as the Self Generation Incentive Program ("SGIP"). However, restricting eligibility for DEBA based on the resource being eligible, as opposed to actually receiving funding from, another program like SGIP will only serve to arbitrarily limit participation in the program and needlessly compromise California's reliability goals. The MRC therefore disagrees that eligibility for DEBA should be restricted based on the existence of other programs. The MRC understands the Commission's intent to limit the opportunity for "double dipping" and prioritize the allocation of funding for investments that may not have access to other programs.

A more measured approach the Commission could consider is to establish program rules that allow customers to choose which incentive program they would like to take advantage of, instead of limiting program participation based on the existence of other programs. In the light of California's significant reliability challenges, the Commission should not preclude any clean technologies that can provide valuable reliability services from participating in DEBA solely based on the technology's eligibility for other programs.

The MRC notes that DEBA, DSGS, and CERIP are all new programs intended to provide funding to spur the development of new clean energy projects and assets that will significantly enhance electricity system reliability to the benefit of the entire state of California. There is also federal funding for grid resilience and related electricity investments that will be forthcoming to California in the months and years ahead. This is an exciting opportunity, but it also requires planning and coordination to ensure the smooth and efficient distribution of these funds to end-use customers and projects to achieve the stated policy and program goals.

It is still unclear, at this stage of program development, how this plethora of new programs will fit together and interact with one another. Additional clarity from the Commission on the relationship between DEBA, DSGS, and CERIP and clearer guidelines for participation in each program will be very helpful to all potential participants now and in the future. The MRC recognizes the program development process is underway, with many questions and answers still to be worked out and finalized. As the Commission reaches the program launch stage, it should create an informational resource that lays out the key details and differences of each program so that participants clearly understand the specific customer eligibility requirements, incentive structures, performance metrics, and other guidelines for participation in each program. Moreover, to the extent practicable the Commission should seek to make a single overall application process and direct applicants to the most appropriate program so the result for customers is as simple and results oriented as possible.

III. MRC's Proposal for Incentive Design

The MRC had responded to the Commission's RFI with information on the specific attributes for microgrids that could reduce system load while also providing significant additional value to California's energy system and communities across the state. DEBA projects that can provide these additional values should be considered in the value stack incentive framework as the Commission develops the final program:

- *Resilience benefits – the ability of resources to serve onsite load during wider grid outages and provide backup power to critical and essential facilities, as well as providing grid support during emergency events*
- *System benefits – the ability of resources to provide ancillary services, firm capacity, and have high availability and dispatchability to respond quickly and support the grid and bulk power system during events. This may also include system benefits that occur outside of emergency events such as avoided line losses and avoided transmission and distribution costs that would otherwise be borne by ratepayers*
- *Environmental benefits – the ability of resources to reduce emissions, criteria pollutants, and avoid adverse water and land use impacts*
- *Locational benefits – the ability of resources to be sited in areas that achieve multiple policy goals simultaneously, such as transmission congested regions, high wildfire risk areas, and in disadvantaged/vulnerable communities*
- *Flexibility – the ability of resources to switch to cleaner fuels and reduce emissions further as renewable fuels become more commercially available and cost-effective over time*

The MRC proposes that the Commission adopt a base incentive + "co-benefit" value stack incentive program design framework that includes the following components:

- A capacity-based $/kW-year incentive to quickly spur the development of new DEBA projects that can provide emergency reliability services.

- A price signal or ongoing payment for DERs providing emergency capacity or load reduction during extreme events, as called upon by the grid operator or utilities.

- Incentive "adders" that can be layered or stacked on to the base incentive for projects deployed under DEBA that provide additional benefits beyond the core emergency reliability services required by AB 205.

Incentive Level	**Attribute**	**Requirement**
$76.50 per kW-year	Base incentive for reliability services	Projects must participate in ELRP or DSGS or otherwise provide reliable capacity during extreme events
+ 10-15%	Expedited interconnection	Projects that can be constructed, interconnected, and ready to serve as emergency resources prior to September 1, 2025 and September 1, 2026, respectively.
+10%	Locational	Projects that are sited in local reliability areas or transmission-constrained areas that need new capacity and can relieve grid congestion locally
+10%	Resiliency	Projects sited at critical, essential, and community-designated facilities that can ***both*** provide emergency grid support and backup power to maintain important public operations & community services
+10%	Equity	Projects located in low-income or disadvantaged communities or rural communities.
+5%	Fuel Flexibility	Projects that may use some conventional fuel resources today but that can switch to clean fuels without technology replacement in the future.

		Projects should certify the capability to operate using 100 percent renewable fuel, as reasonably practicable and feasible, including but not limited to, renewable natural gas, biogas, or green hydrogen in the future.
5%	Air Quality	Projects that meet CARB emission standards emissions standards adopted by the Title 17 of the California Code of Regulations Section 94203.

The base incentive for capacity proposed above is based on the CAISO's Capacity Procurement Mechanism (CPM) soft offer cap. The MRC suggests, as an alternative to the capacity base amount above, that the Commission consider a one-time base $/kW upfront incentive based on installed capacity, adjusted by the same percentages outlined above to reflect co-benefits, for projects that are deployed to provide emergency capacity or load reduction per the requirements of AB 205. While an annual revenue stream would be helpful, for capital-intensive deployments that will provide this broad range of benefits for multiple years, an up-front payment that reduces the initial investment hurdle, avoids uncertainty of future state budgeting decisions, and reduces the Commission's administrative burdens offers significant advantages. These projects would be required to demonstrate the continued ability to provide reliable capacity through extreme events through performance measures, which should be approved in the final DEBA guidelines.

Expedited interconnection is given its own adder to incentivize projects that can quickly be developed and interconnected to meet the reliability challenge. Instead of a "summer challenge" that requires significant administrative resources, the Commission can challenge the market to deliver more immediate solutions with the promise of higher upfront incentives for projects that come online by a date certain. We suggest that 18-24 months from the launch of the program with a 10% adder. This will direct the market to prioritize and accelerate construction of reliability resources that can come online in a short time frames to help reduce the imminent capacity shortfall challenges being faced in the state of California.

Other attributes should be given additional incentives based on the additional value these projects are providing to California. DEBA projects can also increase clean energy resilience and help maintain operations for critical and essential services in communities during wider power outages. At a minimum, the Commission should provide an adder for DEBA projects at critical facilities that are defined by the CPUC in Decision 19-05-042, Phase 2 Decision 20-05-051 and Phase 3 Decision 18-12-005 on de-energization. However, that list may not capture all important resilience center sites as designated by communities, so the MRC encourages flexibility when granting incentive adders for resilience. Mitigating power outages has numerous public health and safety benefits, economic, and other societal benefits. There is also an insurance value of hazard and risk mitigation for local governments and public agencies that the state should acknowledge.

DEBA projects could provide additional system benefits beyond emergency capacity, such as those sited in strategic locations where the grid is already strained on a regular basis. DEBA projects can also accelerate the state's progress on meeting its decarbonization, air quality, and equity goals. Assigning additional value for projects that are fuel flexible and future-proofed, as well as other non-energy benefits, should be part of the overall DEBA value stack incentive structure.

IV. Answers to DEBA Questions for Consideration

1. ***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?***

   It is highly unlikely that this program will create "clean stranded assets." This program is specifically designed to deploy new clean energy resources that can serve as on-call grid assets. These resources will be highly valuable clean energy projects that increase grid reliability, reduce emissions and criteria air pollutants, and accelerate our climate progress for years to come, to the benefit of the state of California. The "fuel flexibility" adder proposed herein will ensure that they do not become stranded assets, as any resources using conventional fuels today must be able to switch to clean fuels of the future as soon as practicable.

   Designing DEBA with a non-market integrated capacity incentive to get resources deployed quickly and corresponding price signals for reliability services will help avoid conflicts with the Resource Adequacy (RA) program while enabling new DERs to respond to grid needs effectively. This will incentivize customers to make the necessary load reductions when called upon, which can augment the RA program and further assure resource adequacy and grid reliability, without DERs needing to interconnect under CAISO or otherwise interfering with the mechanics of that program.

   Longer term, the Commission may want to consider developing a pathway for DERs that provide firm capacity sited in local reliability areas to get RA credits or assign RA value for the deployment of reliable DERs to the host LSE without the DERs having to be fully "market integrated" or go through the long CAISO interconnection process that is geared more for large scale generators.

2. ***Are the proposed program frameworks reasonable? What modifications could unlock additional resources for emergency events?***

   The MRC proposes to create a two-part payment structure with a capacity-based payment per kW for DERs that meet threshold criteria to support grid needs during emergency events (either on an annual kw-yr basis or as a single upfront payment, as discussed above), plus "adders" that are designed to drive DEBA investments into those forms of reliable load reduction that create the most overall value.

   The Summer Challenge Grant is unnecessary and not a good use of time or limited resources. The Commission should prioritize the expeditious deployment of distributed assets and creating a robust customer program with a simple upfront incentive that reduces the cost to deploy the assets and subsequent payments that are contingent on these resources actually meeting grid needs and adders that provide suitable price signals for important "co-benefits." This is a much more cost-effective and efficient approach than a challenge grant that will require additional administrative resources and only pick a select few winning proposals.

3. ***Are there additional criteria that the CEC should consider when evaluating projects? How should the CEC rank or weight the evaluation criteria?***

   The most important attribute is reliability performance since that is the explicit goal of the program pursuant to AB 205. The MRC believes that environmental, resilience, firm capacity and other system benefits should also be accorded weight after accounting for reliability and certainty of performance (see proposed incentive chart above). Locational benefits should also be considered and accorded weight based on the resource's ability to provide other co-benefits or with strategic

siting of projects that will achieve additional policy goals, such as community benefits or environmental justice goals. In considering the priority of projects, we suggest that microgrids should be given priority when they reduce the overall carbon emissions of the grid, which may include projects with a mix of renewables and some conventional fuels, provide assurance of longer-term reliable performance in emergencies, and also provide local resilience.

4. What are reasonable exceptions to non-performance in an emergency event?

The MRC believes that the DEBA program should provide incentives to new customer projects that make commitments to provide firm capacity or load reduction when called upon. DEBA assets and projects should be designed explicitly to perform the needed reliability and load reduction functions to receive the incentive in the first place. Non-performance should be limited to extenuating circumstances and exceptions should be discouraged or prohibited.

5. ***What level of funding is needed to spur the development of a project?***

The exact level of funding for spurring project development varies based on the customer, the system technological components that encompasses a project, and local grid conditions that may impact interconnection costs and timelines.

The creation of incentive programs with well-defined, and preferably long, time horizons paired with clear compensation mechanisms for services performed while participating in the program will provide the much-needed regulatory certainty and market confidence required for developers and customers to engage in the program. The funding level for any incentive must be high enough to make participation worthwhile by properly valuing the service being provided.

Customers and developers will make investments in time, resources, and additional private capital to develop DER projects if there is regulatory certainty in the program and confidence in their ability to access revenue streams, such as ongoing grid support payments, to monetize these resources over time. Certainty and confidence in the program stability is important to spur the development of clean energy projects.

The MRC's proposal is meant to incentivize the wide-scale deployment of customer-sited microgrids that can provide firm capacity and load reduction to California's grid in a timely manner. Microgrids can also help reduce demand in transmission-congested areas, increase resiliency in communities, and accelerate progress on state decarbonization goals *without compromising reliability.* These projects can reduce the risk of power outages that may be caused by a myriad of factors, including but not limited to CAISO capacity shortfalls, PSPS events, or other extreme weather events.

The base incentive plus co-benefit value-stack incentive program that the MRC has proposed herein will ensure that DEBA investments reliably reduce load while creating far more system and societal values than investments that serve only as "back-up" without regard to other values or negative impacts. The value stack incentive structure will encourage the expeditious deployment of new DER projects that maximize reliability value, as well as meet other state and community policy priorities. The MRC is confident that the market will respond to the needs and rise to meet this occasion if the value stack program structure is adopted by the Commission.

V. Conclusion

The MRC appreciates the opportunity to provide comments on the Commission's proposals for implementing the DEBA and DSGS programs under AB 205. The MRC looks forward to continued collaboration with the Commission and other stakeholders to deploy microgrids that will improve energy system reliability in a cost-effective and expeditious manner, while maximizing the value and co-benefits for customers and the state of California.

Respectfully submitted,

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