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Microgrid Resources Coalition Comments on 10-28 Reliability Workshop

Additional submitted attachment is included below.

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



RE: Docket 21-ESR-01 Microgrid Resources Coalition Comments on 10/28 Reliability Workshop

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 the following comments on the California Energy Commission (“CEC”) workshop on October 28, 2022, regarding energy system reliability and the creation of the new Distributed Electricity Backup Assets (DEBA) program pursuant to AB 205.

II. Comments on the workshop

The microgrid industry applauds the CEC and greatly appreciates DEBA explicitly including microgrids

DEBA was created to incentivize cleaner and more efficient distributed energy resources (DERs) that can serve as reliability assets. AB 205 states that, in implementing and administering the program, the Energy Commission shall allocate funding towards the “deployment of new zero- or low-emission technologies, including but not limited to fuel cells and energy storage, at existing or new facilities.”¹ The program was allocated \$700 million over 5 years, with \$550 million to be available this fiscal year.² The MRC greatly appreciates and applauds the Commission for explicitly including microgrids as resources eligible for funding under DEBA and recognizing the values and benefits that microgrids can provide to improve the reliability of California’s energy system.

Microgrids provide maximum flexibility and reliability value

Microgrids can help address California’s capacity shortfall and mitigate the risk of system reliability challenges while simultaneously securing critical and essential facilities against the risk of power outages, whether they be from extreme weather, de-energization events or Public Safety Power Shutoffs (PSPS), CAISO flex alert conditions, or other impacts. Microgrids can also avoid or defer the need for expensive transmission investments, reduce grid congestion, and lower both greenhouse gas emissions

¹ AB 205 Article 2, Section 25791 (a)(b)1-2
https://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=202120220AB205

² California State Budget (2022-2023 Fiscal Year) Summary Addendum at pg. 6

(GHG) and local air pollutants that disproportionately impact vulnerable communities. Microgrids are sustainable assets that have a triple-bottom-line impact and provide tremendous multi-faceted benefits to the state of California.

An important feature of microgrids to note is their flexibility, which is of critical value to California's grid given the need for flexible demand and supply options to address reliability risks. The workshop slide lists microgrids in the "other" category, which is appropriate because microgrids are *systems* – they are not simply supply or demand resources, but rather they are *both*. Microgrids have the ability to provide firm capacity via exports or reduce demand through internal load shedding and/or intentional islanding from the larger grid. They leverage intelligent software and highly advanced predictive technologies to respond to price signals and grid needs on-demand. DEBA can fill a gap by augmenting the limited pool of existing microgrid programs by allowing an avenue to deploy microgrids in a distributed fashion in strategic locations across California. This will also reduce the need for other large, more expensive grid investments, like transmission or undergrounding, and provide greater ratepayer value and savings in the long run.

During the workshop, Vice Chair Gunda shared the importance of appropriately scaling technologies to replace Diablo Canyon and the reliability concerns for summer 2023. Microgrids are a readily available technology that will reduce the need for Diablo Canyon, as well as address other capacity concerns shared in the workshop. For instance, microgrids can operate outside of emergency hours and peak hours to reduce baseload demand on the grid. This means microgrids can help California's grid by reducing peaks from the bottom of a demand graph as well as meeting peak demands from the top of the same graph. Therefore, MRC recommends that attributes such as readiness, supply chain, and dispatchability must be given more weight when considering resource options.

Focus on reliability and well-planned progress towards a clean energy future, not perfection today

Microgrids provide a firm, clean power supply that can incorporate a wide variety of resources and demand management strategies, including all of those listed in the presentation. Unfortunately, bioenergy resources are not mentioned at all despite their significant climate and reliability benefits. The MRC agrees with oral comments made by the Bioenergy Association of California (BAC) during the workshop that they should be explicitly included in the list of eligible resources, especially since bioenergy resources are one of the few firm *and* renewable resources commercially available in the marketplace today. Bioenergy can be an integral component of 100% renewable microgrids, providing clean baseload and firm capacity to supplement any intermittent renewable components of microgrids like solar.

While we note the loading order in AB 205 and the directive to prioritize demand response, efficiency, and renewables in deployments pursued under the DEBA program, the MRC encourages the CEC not to let perfection be the enemy of the good when designing its program requirements and performance standards. For reliability in the mid-term, some fuel-based resources and technologies that leverage some natural gas may be needed to achieve the reliability goals sought by the state, so long as they are highly efficient (per the loading order directive to prioritize efficiency), low emissions, meet local air quality standards, and provide the needed grid support. Diesel generation use has skyrocketed in California and leveraging cleaner gas is a harm reduction measure in the short-term that will reduce the use of the most harmful and polluting technologies like diesel backup while maintaining the reliability benefits.³ AB

³ See [California Current article on Diesel Backup Spree Equaling 15% of California Grid Capacity](#) and [M.Cubed Study on Diesel Backup Generator Population Growth](#)

205 contemplates using some non-renewables for this reason and provides enough flexibility in the statute for the CEC to implement this program with flexibility in mind.

Microgrids may take many forms, but all can provide grid services and reliability benefits to California. Combined heat and power (CHP) microgrid solutions, for example, are highly efficient and use thermal energy productively for heating or other facility operations and have the ability to ramp up and down very quickly as dispatchable assets. Linear generators and modular microgrids designed with solar + storage + natural gas generation are also fully dispatchable and can be called upon on-demand by the grid operator. Additionally, fuel cells and other non-combustion resources significantly reduce air pollution and GHG emissions, even when operating on a baseload 24/7 basis, compared to running a diesel generator that operates 60+ hours a year and do not reduce emissions or provide grid benefits the other 8700 hours of the year. Bioenergy, green hydrogen, and other alternative fuels of the future can replace any non-renewable fuels used today in microgrids as they become more cost-competitive with gas and commercially available.

The microgrid industry is on target to meet California’s decarbonization goals and is actively working towards achieving the targets set forth in SB 100 and other climate policies.

There are a variety of microgrid solutions that can be deployed to meet reliability challenges with high efficiency and low emissions today while not compromising California’s climate and long-term clean energy goals. Not only will these resources be grid reliability assets for years to come, but they will also enable customers to increase resilience at the local level and mitigate the risk of outages that have severe consequences for vulnerable populations, critical and essential services, and communities across the state.

Consider market-informed program design elements and interconnection ease

An important variable to the success of DEBA is the ability of microgrids funded under the program to quickly interconnect to the larger grid and provide reliability services with minimal time, administrative burden and red tape. The biggest barrier to microgrid deployment is the absence of a workable tariff and clear price signals to support microgrids and more sophisticated BTM solutions that could provide reliability benefits if a market pathway is cleared for them.

In addition to providing grid support via the newly created Demand Side Grid Support (DSGS) program or the Emergency Load Reduction Program (ELRP), microgrids could provide more value if other rules and requirements on interconnection and optimization of resources are changed to maximize the effectiveness of microgrids in providing reliability support. A clear tariff for microgrids – not one based on a net metering (NEM) scheme – should be established to expedite and accelerate interconnection timelines to support quick deployment of microgrids. Within the tariff design, other changes to the interconnection rules should be considered to maximize value and take advantage of economies of scale, including modifying prohibitions on grid charging batteries and allowing for more submetering arrangements than what is currently allowed under Electric Rule 18/19. While some of these are lengthier efforts to consider, and require coordination with the CPUC, there are immediate interconnection actions and considerations the CEC can take in administering DEBA.

The MRC agrees with oral comments made by CALSSA during the workshop that DERs deployed under DEBA should not be required to participate in the CAISO market, but rather these resources should be permitted to be market-following, which is achievable with the creation of price signals that accurately reflect real-time grid conditions and reward good grid stewardship behavior by customers.⁴ DEBA can also

⁴ The MRC notes the approval of the CEC’s Load Management Standard and is actively involved in the CPUC’s rulemaking R.22-07-005 on Demand Flexibility and Rate Design and looks forward to working with both agencies to help shape the development of these price signals.

help inform and shape Resource Adequacy (RA) needs in the future by reducing future capacity procurement and leveraging more customer resources deployed under DEBA. There is no need for DEBA assets that will most likely be in the <1MW to 10+ MW size to go through the long CAISO interconnection process meant for utility-scale generators to participate in wholesale markets. The DEBA tariff for DERs can be developed so that it is guided by the CAISO markets, including incentivizing load reduction as one key value stream to support reliability, but DERs do not require CAISO market integration (and the long interconnection timeline) to make a clear and beneficial impact on system reliability.

Customer empowerment and planning for transactive energy

Customer deployments that maximize co-benefits should be the main focus of the DEBA program. The Commission should acknowledge the pace and scale at which customers are installing DERs and invest in the processes that will make it easier, faster, and cheaper for them to aid in both mid-term reliability challenges and long-term climate goals by encouraging clean technology adoption and allow the sharing of power between them. The MRC encourages the CEC to design the DEBA program with the future of transactive energy in mind. It should plan for and encourage the buildout of a customer-centric, networked system of DER technologies that are highly responsive and can communicate with [each other and] the grid operator through advanced telecommunications and digital infrastructure. Pairing incentives like DEBA with clear price signals that engage customers and incentivize them to stay interconnected, participate in the clean energy transition, and help build the grid of the future *together* is a strategically inclusive programmatic approach. DEBA can achieve true energy equity and environmental justice by empowering customers and putting local communities at the center of the network.

III. Conclusion

The MRC appreciates the opportunity to provide comments on the Commission's workshop and will provide more extensive comments in the recently issued RFI. We applaud the CEC for embracing DERs as a reliability solution and creating the DEBA program under AB 205. The MRC looks forward to continued collaboration to deploy microgrids to 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,



Allie Detrio

Senior Advisor
Microgrid Resources Coalition
1211 Connecticut Ave NW, Suite 650
Washington, D.C. 20036
allie@reimagine-power.com