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Comments of Advanced Energy United on DSGS and DEBA programs

Additional submitted attachment is included below.

February 17, 2023

California Energy Commission
1516 Ninth Street
Sacramento California 95814

Re: Docket 22-RENEW-01 –Demand Side Grid Support Program and Distributed Electricity Backup Assets Program

1. Introduction and Summary

Advanced Energy United (United, formerly Advanced Energy Economy) appreciates the opportunity to provide input on potential modifications to the Demand Side Grid Support (DSGS) program and the design of the Distributed Energy Backup Assets (DEBA) program presented at the January 27, 2023 workshop. United is a national business association representing over 100 companies across the advanced energy sector, including those within the distributed energy resource (DER) space, including but not limited to distributed solar and energy storage developers, microgrid developers, energy efficiency and demand response providers, electric vehicle charging hardware and software providers, DER aggregators, and other technology solution providers at the grid edge.

United commends the California Energy Commission's (CEC) leadership in ensuring the state's electric reliability through the deployment of additional energy efficiency, demand response, storage, and clean generation resources. As the state accelerates its transition to a 100% clean electric grid and contends with extreme weather driven by climate change, dispatchable DERs and DR will become increasingly important for enhancing grid reliability and reducing costs for all customers.

The legislature responded to the exceptional reliability challenges of summer 2022 with the authorization of the DSGS program to engage the significant untapped demand response potential existing in the state. The legislature specified that this be a new program, housed at the CEC, for the simple reason that new incremental capacity above and beyond current program participants at the CPUC and CAISO is necessary to ensure reliability and resiliency during extreme events.

United is heartened to hear that the CEC sees the DSGS and DEBA as an opportunity to make a "downpayment for the growth of DR" and an openness to allow stakeholders to "sandbox" different approaches to reach these stranded and untapped resources.[1] United encourages the CEC to allow DSGS providers to empower customers statewide with greater options to deliver net load reductions statewide through three critical program modifications:

1. CEC should allow eligibility for electric customers statewide, regardless of whether they are customers of publicly-owned utilities (POUs), investor-owned utilities (IOUs), or community choice aggregators (CCAs).
2. CEC should allow DR aggregators to participate as DSGS providers directly and either inside or outside of CAISO markets.
3. CEC should allow Self-Generation Incentive Program (SGIP)-eligible technologies to receive incentives through the DEBA program and participate in the DSGS

Each of these recommendations is discussed in more detail below.

2. CEC should allow DSGS providers to participate statewide

Grid reliability is a statewide issue that requires scalable statewide solutions; expanding DSGS customer eligibility to customers of IOUs and CCAs – provided that these customers are not actively enrolled in an existing, competing DR program – would align with the CEC's goal to "maximize incremental capacity and load reduction from demand side resources."[2]

The legislature's intent in creating the DSGS program with statewide eligibility – across POUs, IOUs, and CCAs – could not be more clear. AB205 is unequivocal that DSGS should be a "new, statewide program" available to "all energy customers in the state," and "participating local publicly owned electric utilities and load-serving entities."[3] The legislature further emphasized this intent in AB 209 when it specifically removed language from 25792(b) that would have excluded customers eligible for CPUC-jurisdictional DR programs.

Additional proof of this intent lies in AB205's specific requirement that all resources incentivized under the Distributed Energy Backup Assets (DEBA) program participate in the DSGS program.[4] This requirement does not envision participation in the CPUC Emergency Load Reduction Program (ELRP), and is a further indication of the legislature's intent that the DSGS must be a statewide program in order to accommodate the new resources incentivized under the DEBA program. Without statewide eligibility for DSGS, the DEBA program would also be similarly hobbled.

For these reasons, we and other stakeholders are perplexed by CEC's proposed continued restriction on statewide eligibility for DSGS participation beyond the proposed new, narrow customer classes and technologies identified at the January 27 workshop. The CEC can helpfully

[1] CEC staff and stakeholder comments at 1/27/23 workshop
[2] Workshop slides at 22
[3] Public Resources Code (PRC) section 25792 (b)
[4] 25297(c) Entities with generation or load reduction assets that are incentivized pursuant to Article 2 (commencing with Section 25791) shall participate in the program under this article.

address this uncertainty by clearly articulating its concerns about broader participation, giving DR providers an opportunity to address these concerns with existing or new and innovative solutions.

In its January 27 presentation, the CEC proposes to rely on the language in AB205 that "the CEC, in consultation with the CPUC, may adopt additional participation requirements or limitations." However, this phrase does not support the wholesale exclusion of customer classes – otherwise allowed in POU territory – solely because of their location in IOU territory. Such an exclusion appears in contradiction to the clear, overriding intent of the statute for statewide eligibility. Such a major policy decision is not conceivably encompassed by the phrase "may impose additional restrictions." Rather, it is incumbent on the agency to clearly articulate positive restrictions or limitations that address specific technical, economic, environmental, equity, or other policy-based concerns. Such a rationale would provide stakeholders and decisionmakers grounds to design program parameters to address these concerns.

In the January 27 workshop, CEC staff and Vice Chair Gunda informally shared some of their concerns apparently motivating the exclusion of the vast majority of LSE customers. These concerns included:

- Concern that DSGS participation would compete with, or "cannibalize", existing DR programs including ELRP;
- Concern that new DSGS participants will develop an expectation for continued funding in the future that will not be available or cost-effective;
- Concern for the administrative burden for CEC;
- A desire for "guardrails" in place to prevent any detrimental effects of DSGS program on existing DR and RA programs.

United appreciates this informal listing of concerns, and requests that CEC provide an opportunity to more fully elucidate these issues and allow stakeholders an opportunity to address them. In fact, stakeholders and staff have identified several simple mechanisms to prevent any program competition or market distortions, including:

- Existing DR and ELRP participants can be excluded from DSGS. Both LSEs and aggregators can provide a check process with host LSEs to prevent a current participant from enrolling in a DSGS program.
- The attraction of new participants to DR programs through DSGS is a feature, not a bug. DSGS is an emergency program explicitly designed to be temporary. New participants can be transitioned to existing programs at the conclusion of the program.
- DSGS and ELRP program designs have important differences that attract different customers and resources according to their needs. Specifically, DSGS includes capacity-based compensation that ELRP does not, and pathways to allow DSGS aggregators to participate as DSGS providers directly with CEC, outside of LSE and CAISO market integration but with LSE and CAISO visibility (discussed further below).
- CEC has proposed the engagement of a third-party program administrator to address the administrative burden of enrollment, operation, and evaluation.

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United urges the CEC to pursue these available solutions to any concerns for statewide participation so that DSGS may fulfill its potential in mobilizing the existing and new resources that would otherwise continue to be stranded or untapped.

The consequences of this exclusion are a dramatic reduction in the quantity of resources tapped. For instance, the DSGS workshop slides show that the summer 2022 DSGS program resulted in just over 50 MW of distributed resource dispatch during event days. Just one United member's current fleet of smart thermostats installed in homes across California are capable of providing 50 MW of capacity. Yet restricting the availability of this solution to POU customers would limit the potential impact to only 4 MW.[5]

To the extent that other smart thermostat vendors can offer similar automated emergency demand response, the impacts could be greater still. Market data shows that as of 2022, approximately 14% of residential households in the US had a smart thermostat, which could translate to over 1.5 million smart thermostats capable of delivering 1000 MW of flexible load in California during an emergency.[6]

3. **CEC should allow DR aggregators to participate directly as DSGS Providers, with LSE and CAISO visibility, and outside of CAISO markets where appropriate**

The fact is the state currently enrolls a narrow faction of potential DR devices and capacity. After more than a decade of effort, the gap between the potential of dispatchable customer load reduction and export and the actual participation and performance of these resources is greater than ever. The issues that have reduced participation in DR programs are generally well-known and documented. Two of the largest barriers - enrollment friction such as the "share my data" process and the compensation framework of the CAISO market – can be uniquely overcome for emergency reliability purposes through the DSGS program. There are hundreds of megawatts of flexible load resources in California homes and businesses today that are not enrolled in an existing DR program due to cumbersome enrollment processes and market integration limitations that exist for those programs.

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[5] Internal ecobee research

[6] According to the American Housing Survey, there are over 7.5 million homes with central A/C in California. Based on third-party estimates and available market data, over one million of these homes currently have smart thermostats already installed. There are approximately 170,000 smart thermostats enrolled in California IOU DR programs. Specifically, 63,114 in SCE based on LIP reports, 91,500 that PG&E is seeking to enroll in SmartAC, and 14,839 in SDG&E based on LIP reports (includes A/C switches in the total count).(https://www.census.gov/programs-surveys/ahs/data/interactive/ahstablecreator.html?s_areas=00006&s_year=2017&s_tablename=TABLE3&s_bygroup1=3&s_bygroup2=1&s_filtergroup1=1&s_filtergroup2=1 and http://www.parksassociates.com/blog/article/pr-06142017#:~:text=New%20Parks%20Associates%20research%20shows,by%20the%20end%20of%202017).

CEC has expressed a priority for “Resource Adequacy and CAISO wholesale market participation over emergency programs.” While RA and CAISO market integration of DR resources is an appropriate longer-term state goal, it is not necessary or desirable for a temporary, emergency program such as DSGS. Rather the goal should be that DSGS incentivize incremental participants and resources that may be transitioned to market-integrated programs at the conclusion of emergency conditions and the exhaustion of general fund state funds. In this way, DSGS can be a “downpayment” and “gateway” to an enduring expansion of DR participation in existing and future programs.

In addition, neither LSE DSGS providers nor market integration is necessary to provide host LSE and CAISO visibility into the resources activated. Advanced energy DR providers are able to provide host utility and CAISO visibility without market integration through a variety of methodologies that vary by technology, from smart thermostats to electric vehicle charging equipment, battery storage and vehicle to grid, and commercial HVAC.

To ensure that resources participating in DSGS are eligible to receive compensation for program participation, United encourages CEC to pursue an optional “market-informed” pathway statewide that does not tie resource compensation to direct DSGS provider participation in CAISO markets. This approach could encourage greater program uptake by POUs and align with ELRP, which is triggered by CAISO notices but not integrated in CAISO markets.

4. **CEC should allow Self-Generation Incentive Program (SGIP)-eligible technologies to receive incentives through the DEBA program and participate in the DSGS**

In the January 27 workshop the CEC indicated that it was not planning to allow SGIP-eligible technologies to participate in the DEBA. United is concerned that disallowing SGIP-eligible technologies, such as behind-the-meter energy storage, to participate in DEBA will have the adverse consequence of limiting the capacity that could be made available during emergency events.

United agrees a single system should not receive both SGIP and DEBA incentives but should have the choice of which program to participate in depending on site and customer needs. Additionally, SGIP incentives are nearly exhausted for non-residential energy storage and for non-low-income residential systems, making the DEBA program that much more important for the installation of these types of systems. Thus, United urges the CEC to allow SGIP-eligible technologies to be eligible for DEBA while limiting incentives to projects that do not participate in SGIP.

5. **Summary and conclusion**

United appreciates the CEC’s diligent work in standing up the DSGS and DEBA programs to address the state’s critical emergency reliability challenges. We expect that you will hear from many stakeholders of the impressive array of DER and DR technology and program solutions that exist today and yet on the horizon that can be brought to bear with specific program modifications. United is focused on three cross-cutting program modifications that we believe will enable the broadest range of solutions:

- CEC should allow for statewide eligibility of customer and technology classes, regardless of whether they exist in POU, IOU, or CCA territory.
- CEC should allow for DR aggregators to participate directly as DSGS providers, and where appropriate outside of CAISO market integration.
- CEC should allow Self-Generation Incentive Program (SGIP)-eligible technologies to receive incentives through the DEBA program and participate in the DSGS

Advanced energy companies stand ready to tap the substantial underutilized dispatchable demand side resources that exist today and that will continue to brought online. DSGS and DEBA, as unique, temporary programs housed at the CEC and intended to address emergency reliability needs above and beyond existing programs and existing resource planning, can be a unique mechanism to unlock and grow these underutilized resources and help ensure the state's electric reliability during emergency and extreme event conditions.

United appreciates the opportunity to submit these comments. Respectfully,

/s Brian Turner
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On Behalf of Advanced Energy United