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**SMUD Comments Re January 27th Workshop on the Demand Side  
Grid Support and Distributed Electricity Backup Assets Programs**

SMUD Comments Re: January 27th Workshop on the Demand Side Grid Support and  
Distributed Electricity Backup Assets Programs - 22-RENEW-01

*Additional submitted attachment is included below.*

**STATE OF CALIFORNIA  
BEFORE THE CALIFORNIA ENERGY COMMISSION**

<b>In the matter of:</b>	)	Docket No. 22-RENEW-01
	)	
<b>Reliability Reserve Incentive Programs</b>	)	SMUD Comments Re: January 27 Workshop on the Demand Side Grid Support and Distributed Electricity Backup Assets Programs
	)	
	)	
	)	February 17, 2023

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**Comments of SACRAMENTO MUNICIPAL UTILITY DISTRICT on Demand Side Grid Support and Distributed Electricity Backup Assets Programs**

The Sacramento Municipal Utility District (SMUD) appreciates the opportunity to comment on the California Energy Commission’s (CEC) January 27<sup>th</sup> workshop on proposed implementation of the Demand Side Grid Support (DSGS) and Distributed Electricity Backup Assets (DEBA) program.

In July 2020, SMUD’s Board of Directors adopted a climate emergency declaration, prompting SMUD to develop a bold and ambitious plan for reaching zero carbon by 2030 while ensuring we continue to provide safe, reliable, affordable and inclusive power to our customers and community. Load flexibility, which helps our customers manage their energy use and contributes to our capacity reserves and reserve margin needs, is expected to play an important role in achieving this goal. SMUD offers several programs already and plans to continue expanding our offerings.

In response to the emergency conditions caused by the September 2022 heat wave, SMUD worked closely with the CEC to facilitate the participation of several large customers with load reduction capability in the state’s emergency DSGS program. The participating customers that enrolled with the CEC were generally not accessible outside of emergency circumstances or were already enrolled in a load flexibility program but able to incrementally participate in DSGS during non-overlapping program hours. This approach proved successful, and SMUD was able to provide emergency power to the California Independent System Operator Corporation (ISO) that was tagged as DSGS support several times over the heatwave.

SMUD appreciates the CEC’s attention at the January 27<sup>th</sup> workshop toward ensuring that the development of the state’s Strategic Reliability Reserve, vis-à-vis the DSGS and DEBA programs, does not otherwise cannibalize existing or planned resource adequacy (RA) programs or strand new clean assets. SMUD believes these are key considerations and recommends the CEC use them as guiding principles for implementation of the two programs.

In summary, we recommend:

- The CEC should continue to allow publicly owned electric utilities (POUs) to customize the DSGS program in their own service areas based on their specific operational needs and objectives. This may include targeting specific customer segments and/or limiting which DSGS participation options to offer, the latter of which is particularly important for POUs that are not located within the ISO balancing authority area.
- Any aggregators seeking to serve as DSGS providers should be required to receive the written consent of the host utility regarding program design and implementation to minimize the impacts on load flexibility initiatives and ensure no double counting of load reductions.
- The CEC should allow all resources that receive incentives from DEBA to contribute toward RA, provided that the incented capacity is incremental and participates in DSGS via incentive options 1 (energy payment only) or 2 (energy and standby payment). At minimum, however, the CEC should allow DEBA-funded capacity to serve as RA outside of the months and hours required by the DSGS program.
- The DEBA guidelines should be flexible and allow for diverse, innovative project structures.

We also offer the following responses to the CEC's questions posed at the workshop.

### **Demand Side Grid Support Questions**

1. *What structure or provisions would best support cost-effective Resource Adequacy procurement while also enabling the development and growth of the Strategic Reliability Reserve to responds to extreme events?*

SMUD believes it is critical that the development and growth of the Strategic Reliability Reserve should not come at the cost of other existing or planned load flexibility and demand response initiatives. As noted above, SMUD plans to continue expanding our program offerings to support achievement of our 2030 Zero Carbon Plan. Without careful implementation of DSGS and DEBA, SMUD is concerned that the Strategic Reliability Reserve may unintentionally erode customer participation in such programs, inflate prices because of reliability gaps outside our planning area, or strand new clean energy resources. Each of these factors would make it more challenging and costlier for our community to reliably achieve our clean energy goals.

To minimize these risks, SMUD recommends the DSGS program focus on the following:

- Large customers who are generally not sensitive to market signals to reduce load, except in emergency circumstances, due to operational impacts.
- Customers who are ineligible for utility programs.
- Customers who are already enrolled in load flexibility programs but can incrementally participate in DSGS during non-overlapping program hours.

SMUD believes that the purpose of the Strategic Reliability Reserve is to unlock resources that are available only under emergency conditions, rather than procure resource adequacy for the state. Focusing on the above customer segments will better delineate between emergency resources and resources that are available to contribute to peak load reduction year-round. As a general matter, SMUD believes that utilities should be responsible for designing and implementing programs, individually or in partnership with aggregators, that enroll demand response and clean distributed energy resources to contribute to resource adequacy.

Similarly, SMUD believes that the CEC should focus on DSGS incentive options 1 (energy payment only) and 2 (energy and standby payment) to best support these goals. SMUD questions the purpose of the DSGS incentive option 3 – capacity payment and bid structure – because it appears to be comparable to resource adequacy, which utilities should be securing. In addition, for DSGS participants outside the ISO footprint, SMUD questions the rationale for dispatching DSGS resources in response to the price signals based on the optimized dispatch of another balancing authority area and believes the potential impacts on both the ISO market and the host utility should be fully examined.

At minimum, SMUD recommends that the DSGS Guidelines allow POUs the ability to determine which DSGS incentive options should be made available in their service area and to which customer segments, even if another entity ultimately serves as the DSGS provider.

*2. How best can the Program unlock untapped DR or other stranded resources under its statutory constraints?*

See response to Question 1. SMUD recommends the DSGS program focus on resources that are not sensitive to market signals except for emergencies, resources that are ineligible for utility load flexibility programs, and resources that are enrolled in load flexibility programs but can incrementally increase their participation in the event of emergencies.

*3. As aggregators and others participate in DSGS directly: What is the most effective approach for host utilities to have visibility? What would be an effective method to ensure customers are not participating in multiple programs?*

In general, SMUD believes that DSGS participants, including aggregators, should enroll in DSGS programs offered by the host utility. In some circumstances, however, it may be appropriate for an aggregator or the state to serve as a DSGS provider if the host utility declines to serve as a DSGS provider and partners with an aggregator to implement the program in a manner that is suitable for the operations and contributes to the reliability of the host POU. SMUD believes that this coordination with and approval by the host POU is crucial to prevent adversely affecting existing and planned load flexibility initiatives, ensuring no double counting of load reduction, and managing resource dispatch.

However, if the CEC decides to allow aggregators to serve as DSGS providers independently from the host utility, SMUD urges the CEC to limit eligibility to the customer segments described in the response to Questions 1 and 2 and require the aggregator to communicate specific information to the host POU in advance of, and during, the event. In addition, SMUD observes that there may be several practical issues related to registration, net incentive payments, wheeling, and settlements that will need to be considered and addressed prior to aggregators directly enrolling customers.

Visibility into the location and the potential and actual amounts of load reduction capacity is important for the host utility's management of its own system. Additionally, to facilitate cross-balancing authority transfers if another balancing authority issues an EEA, the host utility requires this information to enable accurate emergency tags. SMUD recommends that aggregators be required to provide, at minimum, the following information to the host POU:

- Forecasted load reduction capability and location(s) in advance of any DSGS events.
- The amount of load reduction (and location) committed for a dispatch period, as well as any ramping time to fully reduce the load.
- Any real-time deviations from the committed load reduction quantities and time.

As noted above, SMUD queries the rationale and appropriateness for incentivizing DSGS participants outside the ISO footprint to dispatch load reduction or clean generation resources in response to market signals from another balancing authority area. However, SMUD observes that to enable this option, it would also be necessary to consider and address the following: the potential applicability of any wheeling charges ; accounting and settlements; responsibility for net incentive payments for any capacity that remains with, but was not triggered by, the host utility; administrative costs; and/or any load imbalance charges if the reduction is materially significant to the host utility's load.

In addition, to ensure that customers are not participating in both an aggregator administered DSGS program and a utility program (except for allowable incremental participation during non-overlapping program windows), SMUD understands it may be necessary to develop a mechanism to confirm customer enrollment. SMUD has a legal obligation to maintain the confidential information of our customers. SMUD expects that any confirmation mechanism would require a contractual arrangement with the aggregator and authorization from the customer and will take time to develop.

*4. Should DSGS be provided to other use-cases in IOU territories? If so, what use-cases and how?*

SMUD declines to comment on DSGS participation within IOU territories at this time.

5. *What other program modifications should be considered?*

SMUD recommends that the CEC adopt modifications to the DSGS program expeditiously so that operational protocols and customer agreements can be developed and in place well in advance of any program events. This will be essential to the successful execution of the program and help minimize administrative costs for the DSGS providers.

SMUD offers the following initial recommendations regarding program modifications:

- Maintain existing DSGS providers or require aggregators to partner with and obtain consent of the host utility. SMUD recommends the CEC reconsider the proposals to allow aggregators to serve as DSGS providers *independent* of the host utility. However, if the CEC adopts this proposal, SMUD urges the CEC to require aggregators to follow the eligibility and visibility requirements and to work through the issues regarding registration, settlements, responsibility for costs, described in response to Question 4 *prior* to approving any aggregator as a DSGS provider.
- Add flexibility to align with executive orders. SMUD appreciates the CEC's proposal to provide greater flexibility and align DSGS dispatch periods with any Executive Orders. SMUD recommends the CEC extend this flexibility to DSGS standby periods as well.
- Clarify net incentive payments. SMUD recommends the CEC clarify the net incentive payment for DSGS incentive options 1 and 2 for DSGS providers outside the ISO balancing authority area. Specifically, the DSGS guidelines should clearly indicate that the DSGS provider may specify their own methodology for determining the economic value of the energy (e.g., based on the locational marginal price in the real-time market) and that any wheeling fees, as may be applicable, will be factored into the net incentive payment.
- Maintain balancing authority flexibility. SMUD recommends the DSGS program continue to serve as a program to free up capacity that may be transferred between balancing authorities, as may be needed and appropriate, using existing protocols. In addition, the program should continue to prioritize load reduction for the host balancing authority when one or more balancing authority areas issue, or anticipate needing to issue, an EEA.
- Maintain flexibility in DSGS participation offerings. SMUD also recommends the DSGS program continue to allow DSGS providers to determine which participation options to offer for their service area. To the extent that aggregators serve as DSGS providers, SMUD recommends allowing the host utility and balancing authority area to approve the use of incentive option 3 within their respective service area and footprint.

- Clarify applicability of flow-down requirements in Chapter 6. Consistent with our July 28, 2022, comments on the draft Proposed DSGS Program Guidelines, we recommend the CEC clarify which requirements are applicable to DSGS providers, participants, and any subcontractors.

## **DEBA Recommendations**

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?*

The Distributed Electricity Backup Assets (DEBA) program presents an opportunity for the CEC to incent the development of incremental new capacity that will serve the state during emergencies. SMUD appreciates the CEC's proposal to allow bulk grid investments to contribute to resource adequacy and to use evaluation, measurement, and verification to confirm that the capacity was operationalized during emergencies.

SMUD recommends the CEC take a similar approach for distributed resources and allow such resources to contribute to resource adequacy, provided the capacity participates in DSGS incentive options 1 or 2 and is dispatched during emergencies by the utility or the DSGS program. SMUD believes this holistic view of incremental capacity for emergencies is important to support diverse project concepts and incentivize the addition of clean capacity without stranding resources or distorting market signals.

For example, SMUD believes that DEBA could have a significant impact in reducing reliance on backup generators during extreme conditions if the program provides incentives to co-locate solar and storage (or other low-emission dispatchable resources) with those backup generators. The solar and storage could contribute to resource adequacy year-round and participate incrementally in DSGS under incentive option 1 or 2, but the addition of this incremental capacity minimizes the potential need to run the backup generator. Another potential avenue is residential storage, provided that the additional capacity incented by DEBA is segmented, does not receive other incentives, and enrolls in DSGS. At minimum, SMUD recommends the CEC allow resources to contribute to resource adequacy outside of the DSGS months (November to May), outside of the DSGS participation hours during the summer months, and/or outside of an initial participation period (e.g., 3 years).

Alternatively, should the CEC determine that distributed resources receiving DEBA incentives cannot contribute to resource adequacy, SMUD recommends the CEC increase investments on bulk grid investments and focus the investments for distributed resources on customers with significant load who are generally not sensitive to demand reduction signals outside of emergencies due to operational restrictions (e.g., manufacturing, thermal storage) or because they have a specific resilience need (e.g., schools, community centers), or facilitating access to resources that may not typically be available (e.g., facilitating bi-directional EV charging to reduce net building load



during an emergency). This focus for distributed resources would help clearly delineate DEBA as an emergency program, not a resource adequacy program. SMUD also observes that, to the extent DEBA is effectively procuring resource adequacy for the state via DSGS incentive option 3, this may distort market signals and adversely affect resource adequacy procurement by utilities.

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

SMUD appreciates the proposed implementation of DEBA as a grant funding opportunity that provides flexibility for design, ownership, and technology of qualifying resources. SMUD recommends, however, that the CEC apply the same holistic view of incremental emergency capacity for bulk grid investments to distributed resources, as described in the response to Question 1 above.

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

At this time, SMUD believes the proposed evaluation criteria are generally reasonable and provide adequate flexibility regarding design, ownership, and technologies for a range of potential DEBA projects. However, as noted above, if the CEC determines that distributed resources cannot contribute to resource adequacy, SMUD recommends adding criteria to prioritize bulk grid investments and to focus distributed resource eligibility on customers that are generally not good candidates for load flexibility programs (e.g., due to operational impacts or significant resilience needs). In addition, SMUD also suggests the CEC consider whether bulk grid investments that can enable the addition of emergency resources, such as substation modernization, may qualify for DEBA funding.

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

Resources should not be penalized if they are already serving as backup power due to on-site power loss. In addition, as noted above, SMUD recommends that the CEC allow resources that receive incentives from DEBA to participate in DSGS incentive options 1 or 2. In such circumstances, resources would not be penalized if they were already dispatched for the utility program.

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

At this time, SMUD is still assessing the level of funding that may be needed to spur the development of bulk grid investments and other DEBA project concepts. SMUD's initial estimate is that a DEBA incentive of \$250/kWh could help spur rapid deployment of distributed storage. However, to the extent that CEC may prohibit distributed resources from counting toward resource adequacy *and* focus on broad customer eligibility, SMUD recommends ensuring that DEBA incentives are not set at a level that draws participation away from resource adequacy and into the state's Strategic Reliability Reserve.

**Conclusion**

SMUD looks forward to continued partnership with the CEC to support grid reliability and to refine and implement the DSGS and DEBA programs.

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