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Sunrun's Comments on January 2024 DSGS Workshop

Additional submitted attachment is included below.

February 5, 2024

California Energy Commission
Docket No. 22-RENEW-01
715 P Street
Sacramento, California 95814

RE: Sunrun Comments on the January 23, 2024 Staff Workshop on the Demand Side Grid Support (DSGS) Program

Sunrun Inc. (Sunrun) respectfully submits these comments responding to the Staff Workshop on the Demand Side Grid Support (DSGS) Program held on January 23, 2024. Sunrun appreciates the California Energy Commission's (CEC) efforts to update, expand, and refine its DSGS program for the upcoming summer seasons. Sunrun participated in DSGS in 2023, but participation was limited due to the late approval of updated DSGS guidelines and key barriers, which Sunrun will discuss below.

Sunrun continues to believe that Option 3 of DSGS will provide emergency reliability value for the state of California. Because DSGS is structured as a state-wide, market-adjacent, but not market-integrated program, many more customers are eligible to participate in DSGS compared to other programs that are specific to a particular utility or that require participation in the wholesale market.

In order to encourage customer participation and ensure a robust program turnout, the CEC should consider a few key modifications. Generally, Sunrun recommends the following:

- Payment levels for Option 3 should be increased to encourage participation and reflect current market conditions.
- The CEC should explore how to remove barriers to dual participation in Proxy Demand Response (PDR) and Option 3.
- Electric vehicles (EVs) should be incorporated into DSGS.

In these comments, Sunrun also responds to the questions posed by the CEC at the Staff Workshop.

1. What additional potential program modifications should be considered?

I. Payment levels for Option 3 should be increased to encourage participation and reflect current market conditions.

Currently, DSGS Option 3 compensation levels are insufficient to drive significant customer participation, and near-term reliability risks and market conditions warrant higher payments. Sunrun supports the adoption of payment levels proposed by the California Energy Storage Alliance (CESA), which are $160 / kW-season for a 4-hour resource, $144 / kW-season for a 3-hour resource, and $120 / kW-season for a 2-hour resource.

Generally, compensation for demand response (DR) or other customer programs is based on the value of electric generation capacity, since DR's value is preventing the construction of new capacity on the grid. For this reason, Sunrun understands why the CEC previously based payment levels on historical Resource Adequacy (RA) costs. However, historical RA prices do not reflect current market conditions nor California's need for near-term emergency capacity.

The state and CEC created DSGS to mitigate near-term reliability risks due to increasingly extreme weather and a lack of needed capacity in the RA market to accommodate these high-load days. Inflationary pressures and supply chain bottlenecks are continuing to prevent California from deploying utility-scale resources, with the RA market continuing to tighten and prices expected to increase further in the near term.[1] The RA market has also proven inadequate to ensure reliability during grid emergencies. Currently, system RA requirements are set using 1-in-2, or average, load peaks with a planning reserve margin that provides some cushion. This framework was not able to ensure electric system reliability during extreme weather in California in 2020 or 2022, with load reduction and customer-sited actions preventing load shedding during the 2022 September heatwave. Non-RA, customer-sited resources will be critical to ensuring reliability, especially in the near term as the CEC continues to project potential shortfalls under extreme events. The CEC Stack Analysis for Summer 2023 projected a potential 1,800 MW shortfall under a 10-day extreme event similar to the one California experienced in 2022.[2] The DSGS program is critical to ensuring that customer-sited resources will be available for these extreme events.

For these reasons, instead of using historical RA pricing, Sunrun recommends that the CEC base DSGS Option 3 payment levels on forward-looking forecasts of the cost of new resources that are needed to ensure reliability. The California Public Utilities Commission's (CPUC)

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[1] *See* CalCCA, *California's Constrained Resource Adequacy Market: Ratepayers Left Standing In A Game of Musical Chairs,* published September 15, 2023. Available at: https://cal-cca.org/wp-content/uploads/2023/09/CalCCA-Stack-Analysis-2023-2026-updated-9_15_23.pdf

[2] CEC, *Summer 2023 Reliability Outlook*, presented May 17, 2023, slide 7. Available at: https://efiling.energy.ca.gov/GetDocument.aspx?tn=250186&DocumentContentId=84909

Avoided Cost Calculator (ACC) estimates that the average generation capacity value of DERs from 2024 through 2027 is $246/kW-year.[3]

Other states have recognized the value of near-term capacity and provide compensation that is similar to the ACC avoided cost value above. For example, the Connected Solutions program in Massachusetts provides compensation between $200 - $275/kW-season for the summer season.[4] If the CPUC's Emergency Load Reduction Program (ELRP) had the same maximum dispatch parameters as DSGS, a 2-hour resource would receive the equivalent of a $140/kW-season payment.[5] Sunrun's prior comments on the DSGS Second Edition Guidelines also provide an overview of compensation levels for other bring-your-own-device (BYOD) summer reliability programs across the country, all of which provide at least $200/kW capacity payments per season.[6]

Additionally, customers have to receive payments that compensate for lost bill savings that they could have otherwise received from day-to-day battery operations. Most customers with battery energy storage in California are participating in the CPUC-jurisdictional Net Energy Metering (NEM) Tariff. The CPUC has recently created a new Net Billing Tariff (NBT) that significantly changes how customers are compensated for battery exports and heavily encourages self-consumption. Yet, for customers with low load during times of grid stress, being able to export power to the grid is critical to maintaining system reliability. DSGS Option 3 explicitly recognizes this and measures the contribution of the battery to a DSGS event, regardless of whether the power is used onsite or exported. Given the new NBT program, DSGS customers are more likely to have reduced bill savings compared to NEM 2 customers. Therefore, compensation levels need to reflect a greater lost opportunity for bill savings. Otherwise, it is uneconomic for those customer-sited batteries to dispatch for DSGS.

For these reasons, Sunrun encourages the CEC to adopt the proposed Option 3 payment levels outlined by CESA in order to drive significant customer participation, address near-term reliability risks, and have compensation levels that reflect market conditions. If the CEC does

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[3] The ACC calculates generation capacity value based on the Real Economic Carrying Charge (RECC) for a battery energy storage facility. The values referred to here are $nominal/effective kW-yr. Data from CPUC, *2022 Avoided Cost Calculator Electric Model version 1b*. Available at: https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/demand-side-management/energy-efficiency/idsm

[4] *Sunrun Inc. Comments on Modified Draft Demand Side Grid Support Program Guidelines, Second Edition,* submitted to Docket No. 22-RENEW-01 on July 10, 2023, Table 2.

[5] ELRP Capacity Payment Calculation: 35 events per season * 2 hours per event * $2 / kWh = $140 / kW-season capacity payment for a 2-hour resource.

[6] *Sunrun Inc. Comments on Modified Draft Demand Side Grid Support Program Guidelines, Second Edition,* submitted to Docket No. 22-RENEW-01 on July 10, 2023, Table 2.

not adopt these payment levels, at a minimum, the current 30% payment adder should be extended through 2027.

II. The CEC should explore how to remove barriers to dual participation in the wholesale market and DSGS Option 3 when multiple assets are behind the same customer meter.

Sunrun appreciates the CEC for thoughtfully considering how to unlock additional value from customers participating in the California Independent System Operator (CAISO) wholesale market. These customers can be early adopters of load-shifting technologies, such as smart thermostats, electric vehicles, and behind-the-meter (BTM) battery energy storage. Option 2 of DSGS is designed to encourage customers already participating in a Proxy Demand Response (PDR) aggregation to provide additional energy beyond their market obligations. Like PDR itself, Option 2 is still limited in that it does not recognize individual devices and does not compensate for exports.

Option 3 is a better participation pathway to properly value the contributions of BTM storage, given its measurement at the submeter and accounting for exports. However, to participate in both PDR and Option 3 through different assets behind the same utility meter, customers must have a PDR "energy baseline reflect total gross consumption (that is, consumption independent of any energy produced or consumed by behind-the-meter battery storage) consistent with California ISO tariff Section 4.13.4."[7] Most customers are not utilizing this baseline option with CAISO, and many customers have their energy storage device controlled by an aggregator that is not the registered Demand Response Provider with CAISO.

Sunrun recognizes that a customer's dual participation with different assets in Option 3 and Option 2 itself is complex, but we encourage the CEC to begin additional conversations around how to enable additional contributions from these customers. This will require a new verification process for customer eligibility since the dual participation check would be at the asset level. It will also likely involve a new performance measurement process that properly accounts for exports within Option 2 or market participation within Option 3. This may also be best addressed through a new Option. Given the need for further stakeholder engagement, Sunrun encourages the CEC to begin discussions on this issue as soon as possible.

III. Electric vehicles should be incorporated into DSGS.

During the Workshop, CEC Staff shared a proposal for the inclusion of electric vehicle (EV) discharge (V2X) into DSGS Option 3, which was originally proposed by the Vehicle Grid

[7] CEC, *Demand Side Grid Support (DSGS) Program Guidelines, Second Edition*, p.21.

Integration Council (VGIC) in this docket. Sunrun supports the incorporation of V2X into DSGS Option 3 or a new Option. If V2X is incorporated into Option 3, EV-specific considerations must be outlined in the DSGS guidelines for those aggregations of EVs, as outlined at the Workshop and in VGIC's proposal. Nevertheless, these considerations should not impact the existing participation parameters for BTM batteries.

2. What are the barriers to enrollment and participation for both providers and participants?

Currently, the largest barrier to enrollment and participation in DSGS Option 3 is an inadequate payment level, as explained above.

Another barrier to DSGS participation is the ability of DSGS Providers to confirm customer eligibility for DSGS, particularly confirming that customers are not dual-enrolled in other conflicting programs. For example, if the DSGS Provider is not wholesale market integrated and intends to enroll their assets through DSGS Option 3, they may not have access to the CAISO's Demand Response Registration System (DRRS) or investor-owned utility program enrollment data, which are used to confirm that customers are not dual-enrolled. Therefore, Sunrun strongly supports the proposal shared at the Workshop to use attestations to confirm customer eligibility. Sunrun directly controls the program enrollments and dispatch of our battery fleets and will use these resources to respond to DSGS events.

3. What is a reasonable deadline for submitting incentive claims to ensure timely reporting of performance while providing sufficient time to providers and participants to gather the necessary data?

Sunrun supports establishing a timeline for submitting payment claims to ensure timely performance data and payment. For other DR programs, Sunrun has submitted claims monthly, at least 30 business days after the participation month ends, and this would be reasonable for DSGS.

We also encourage the CEC to establish a timeline for processing claims and payments to DSGS Providers. Sunrun has seen payments from program administrators 30 to 60 days after a claim is submitted for other DR programs.

By establishing these timelines, the CEC and other stakeholders can have a clear schedule for assessing DSGS performance and budget levels, as final payments for DSGS participation in the previous year would be processed in the first quarter of the following year.

Conclusion

Sunrun appreciates the CEC's consideration of these comments. Sunrun urges the CEC to adopt the recommendations herein to ensure the DSGS program's compensation levels and structure will effectively incentivize DSGS participation in the near and long term. Most importantly, Sunrun is concerned that if compensation levels are not increased for the DSGS program, there will not be sufficient incentive for meaningful customer participation, and it will be difficult for aggregators like Sunrun to participate in the program in 2024. Thank you for your time, and we look forward to continuing to collaborate with CEC staff on this important program.

Respectfully submitted,

/s/ Chris Rauscher
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