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Generac Comments on January 2024 DSGS Workshop and Guidelines

Additional submitted attachment is included below.

February 5, 2024

California Energy Commission
Docket Unit, MS-4
715 P Street
Sacramento, CA
Via docket submission

Re: Docket No. 22-RENEW-01 – Reliability Reserve Incentive Programs
Comments on Proposed Draft Demand Side Grid Support (DSGS) Program Guidelines, Second Edition on the DSGS Program

Dear Vice-Chair Gunda and Commission Staff,

Generac Power Systems appreciates the significant attention that Energy Commission (CEC) staff has given DSGS, and the thoughtful engagement with stakeholders on designing this crucially important program. After the 2023 pilot year, significant capacity was added to an emergency reliability pool, and we were proud to contribute to that effort. With these comments, Generac Power Systems will focus on providing responses to proposals put forward in the January 23, 2024 workshop, as well as our own feedback and experience in the 2023 program year. We also offer our ideas for overall improvements and expansions to DSGS to better fulfill the program's potential and better realize the clear legislative intent in creating DSGS to help prevent grid emergencies.

I. Introduction

Generac proposes that the Commission focus on two overarching goals with these Guideline updates. Most importantly, we recognize the need to make incremental changes to the program Guidelines adopted in Summer 2023, and to implement such incremental changes quickly so they can be in place for a full program year in 2024. At the January 23 workshop, staff suggested a May target for final approval of the updated rules, which is already during the program year. Generac urges the CEC to consider the modified guidelines instead at the April business meeting to ensure final guidelines are ready for a full program year.

Additionally, we believe that larger program changes are necessary and appropriate, and that a parallel track of consideration should be commenced to fully consider and incorporate more substantial improvements, and these program improvements should be finalized in time for a June business meeting. These necessary changes include expanding DSGS "Option 1" or Option 3" to a statewide smart-device program so that it captures as much capacity as possible to support the grid during times of stress. This is the legislative mandate given to the CEC along with the very significant program budget of over $300 million. As the current design of DSGS excludes so many customers, the

efficacy of this program will continue to fall far short of the Legislature's intent when it was created and funded. These larger programmatic changes can and should be considered through the next several months after immediate approval of the incremental changes. Finally, we provide in these comments feedback on our experience with each option and responses to staff questions.

As an American manufacturer providing distributed energy resources to customers for over 60 years, Generac understands that the reliability and resilience are a basic need of every household. Generac is a leading energy technology solutions company providing distributed energy resources and software solutions to address the rapidly evolving needs of communities, energy consumers, and utilities. With a long history of providing resilience and energy management products across a variety of applications and maintaining a leading position in the power equipment market in North America, Generac also has an expanding presence internationally.

Aggregating demand-side capacity through demand response, virtual power plants, DERMS and other automation technology like smart thermostats and control systems has been highlighted as a key demand flexibility resource that the Commission, Legislature and CAISO have called out to help accomplish the CEC's ambitious 7 GW load shift goal per AB 846 (2022) and provide overall system reliability. In accordance with AB 209 we are pleased to support the DSGS program in meeting this demand-focused future and offer the following comments.

II. Comments on immediate incremental Changes to Existing Program Options/ Responses to Workshop Questions

A. 30% Bonus Should be Extended to Program Year 2025

Given that the DSGS Guidelines were amended towards the end of Summer 2023, very few participants could make the required investments to participate. Generac joins the California Solar and Storage Association's (CALSSA), California Energy Demand Management Council (CEDMC), and Advanced Energy United (AEU) in recommending that the Commission extend the availability of the 30% bonus through 2025. This is prudent and reasonable, especially given that the vast majority of the DSGS budget remains unspent after two years of the program.

B. 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?

The CEC should adopt timelines for verification of participation and should create a near-term deadline for filing claims from last summer so that the remaining budget for summer 2024 can be ascertained as soon as possible. Specifically, for all data that is accessible to the provider, Generac believes that 45 days is sufficient. For instances when additional data is required from utility partners, an additional 45 days may be appropriate.

We encourage the CEC to consider the recommendations of both CALSSA and CEDMC who encourage either a 90-day maximum deadline for filing claims or a January 1st deadline for verification of the prior summer season. This will ensure that the CEC can adjust the program as needed for the next summer, just as it is doing right now, with more complete information about the success of the prior season and how much budget is remaining.

C. Comments on Changes to Option 1: Generac's Experience with Connectivity Solutions for Water Agencies

Generac worked with eligible water utilities across the state and was able to enroll meaningful capacity into the program in 2023 with connectivity that allows for remote control of water utilities' battery assets. We experienced few issues that were not resolved through the pilot year other than an enrollment verification issue. Generac would like to confirm which party is responsible for determining eligibility. Generac also seeks clarification around how we will receive confirmation of enrollment and incentive processing.

D. Comments on Necessary Changes to Option 2: Barriers to enrollment and participation for both providers and participants

The barriers to customer enrollment under Option 2 are far too high to include a large amount of capacity from residential smart devices. Our understanding of CAISO's market-integrated demand response product is that it requires customers to complete "Share my Data." In ecobee's experience, very few customers will enroll in Share my Data at current incentive rates if at all. Our experience with the Cali ecosave program is illustrative of these enrollment barriers. Since July 2023, ecobee has offered eligible customers in California's warmest climate zones (zone 9-15) a deeply discounted "ecobee3 lite" smart thermostat ($10 vs. $149.99 retail) or a deeply discounted "ecobee Smart thermostat Premium" ($149 vs $249.99 retail) as an incentive to enroll in the "Cali ecosave" program, a voluntary community energy savings program approved the CPUC and funded by ratepayers. As of November 2023, customers purchased 502 devices to participate in the program.

Through that program, we found that only 37% of customers completed the "share my data" process during the purchase enrollment process, 54% failed to complete the share my data process at all, and 16% cancelled their order entirely. When ecobee sought to confirm a customers' eligibility, it took, on average, 17 days to confirm, with 81% of cases taking longer than a week. Finally, ecobee received 126 customer support calls from only 502 devices fielding inquiries about eligibility and to handle cancellations.

Contrasting the Cali ecosave program with a similar offering in Canada, the differences become even more stark. Ontario launched "Save Energy Peak Perks" in mid-2023 and successfully enrolled more than 100,000 households in the first six months of the program's availability. Overall the program is capable of reducing demand by 90MW, the aggregation was used six times during the cooling season and delivered a one-hour peak reduction of **54MW** to the grid. Program enrollment is streamlined through an in-app

process during which nothing additional is needed other than a simple click acceptance. Customer address is provided upon device registration and the OEM, working with the IESO, confirms account and address match and enrolls the customer. For participation, customers are given a $75 prepaid gift card for initial enrollment and $20 for each year thereafter that they continue to participate.[1] In short, the market enrollment process is a significant barrier that hamstrings any program success. To be brief, the Ontario market is much smaller than California. If we had an equally simple program, the CEC could expect an even larger response (reasonably 2x higher) than Ontario delivered.

In the meantime, it is unreasonable for the CEC to expect residential customers to complete burdensome enrollment processes so that their smart devices can participate in the CAISO Demand Response (DR) product under Option 2. Our data show that enrollment will remain extremely low until this burden is addressed—and at present Option 2 is the only place for residential smart devices in IOU territories to be included in DSGS. This limitation severely hampers program effectiveness and ensures that legislative intent for an effective statewide program to help the grid during emergencies will remain elusive. Option 2 will not work to capture meaningful capacity from residential customers as presently designed.

Aggregators Require Greater Ability to Predict Revenue Given High Cost and Complexity of the Market-Integrated Program

As stated in prior DSGS comments, Generac is concerned about the complexity of participating in Option 2, and the related inability to predict expected revenue reliably, and believes this will impact program participation. Feedback from other stakeholders who participated in the market- integrated DR product under Option 2 have confirmed the difficult experience in enrolling customers.

E. Comments on Changes to Option 3

The CEC should not decrease incentives for Option 3—There are plentiful funds remaining in the Appropriated DSGS Budget

According to the staff presentation, eight aggregators enrolled about 10MW of capacity under Option 3, but there were only three events, all occurring before the amended guidelines were adopted to include Option 3 for residential storage. Therefore, 2023 cannot be considered a “test year” for the new program guidelines. The higher “bonus” payments should remain in place for 2024 to fully incent the maximum participation possible for the BTM storage resources.

Day-of triggers for Battery Dispatch

At the workshop, staff proposed to change the trigger for Option 3 to include “day of” triggers and not just “day ahead” triggers, including: “event trigger based on DAM LMP or

[1] Save on Energy's Peak Perks Program Reaches Milestone Enrollment (ieso.ca)

Flex Alert, EEA Watch, or EEAx up to 3p.m. of the event day (Still subject to program hours and VPP duration)."

Generac sees value in expanding the types of "events" that will trigger this program, as this will help the grid and increase customer compensation. Generac is already responding to "day-of" event triggers as part of Option 1 and in other energy markets, such as ERCOT's Emergency Response Service. However, incorporating this capability will require additional set-up work and may require modifications to the program, customer terms, and additional customer engagement. If the CEC seeks to incorporate a major change to the dispatch so close to the next control season, we recommend making participation optional and enabling a lucrative bonus for participation in emergency events (both opting in and actual event participation).

Recommendation for Customer Enrollment Experience Simplification for Option 3

Generac Power Systems agrees with CALSSA and CEDMC that customers should be required to submit no more than premise address in order to enroll under Option 3.

NEM 3.0 Bill Impacts and Export Credit

Generac continues to be concerned that customers will have to choose between maximizing NEM 3 credits and participating in DSGS. There can be a substantial opportunity cost of not capturing limited high NEM 3.0 Avoided Cost Calculator (ACC) export values in the process of responding to DSGS events. Relatedly, we are concerned about potential bill impacts to customers from participating in DSGS where export compensation is below the retail rate and/or dispatch results in demand charge impacts.

Going into future program years, we continue to believe that additional "true-up" or supplemental energy payments may be justified to address the differences between ACC and retail rates and to compensate for lost NEM 3.0 ACC export revenue.

III. Broader programmatic changes are still necessary to make DSGS more effective. The CEC should develop a Statewide smart device program to fulfill legislative intent.

A. The CEC should include smart thermostats in Option 1, or create a new Option that is available to all California households.

The Guidelines adopted in 2023 exclude all residential IOU customers from "Option 1." Therefore, Generac renews its call for the CEC to expand Option 1 customer eligibility to include all IOU customers and distributed technologies not currently enrolled in a demand response program as provided in AB209.[2] In prior comments, Generac shared our estimate that almost 100 MW of capacity would be available for the grid in 2024 and beyond via smart thermostats, water heaters, and other smart home controls if Option 1

[2] See May 11, 2023 Generac Comments on Proposed DSGS Guidelines, available here; see also February 17, 2023 Generac Comments on DSGS and DEBA Workshop, available here; see also February 7, 2023 DEBA DSGS Program Design Proposal, available here.

were expanded. This expansion would open an opportunity for Generac alone to bring ten times more smart thermostat capacity in an emergency when compared to the capacity available with the current guidelines, which only allow for POU customer participation. The ability to fully leverage these and other distributed assets will reduce the need for older peaker plants to remain online and will reduce the need for purchases of expensive imported energy. During the 2022 heatwaves California's ratepayers paid over $1 billion in higher energy costs.[3]

> If smart-devices cannot be added to Option 1: a new option should be created to include controllable devices with device-level telemetry and submeter measurement capability. A pathway for more than one device (e.g. a smart thermostat and a battery) to enroll at a single address must be considered.

As more connected solutions are available to provide grid solutions, picking one from a single customer account is artificially limiting. Generac and other stakeholders, including AEU and CEDMC, urge the CEC to consider allowing for a single customer to enroll in multiple programs. Specifically, the CEC should allow for a statewide offering for thermostats under Option 1 as well as an export option for those households to enroll with their behind the meter (BTM) batteries under Option 3.

Last year Generac encouraged the CEC to create an "Option 4" for other load-modifying (i.e. "smart") devices. Generac agrees with comments filed by OhmConnect, AEU, CALSSA, and CEDMC on the January 2024 workshop that the CEC has the potential to dramatically expand incentives for dispatchable controllable load by following the Option 3 model. The CEC can create a new option for load modifying devices with device-level telemetry or submeter measurement capability, such as smart thermostats, electric vehicles/electric vehicle supply equipment, smart water heaters and heat pump water heaters.

We understand that the CEC has hesitations regarding whether it will be possible to verify customers to avoid duplicative enrollment. CEC Staff has expressed hesitation regarding whether a SAID is sufficient to verify that a customer's load is not already participating in "supply side" DR programs at the CAISO. However, we agree with AEU and OhmConnect, that there is a reasonable solution that lies both with the aggregators and in device-level telemetry. First, the CEC can require aggregators to verify that each customer enrolled in a new DSGS option for smart devices is not also enrolled in another, existing, supply side DR pilot. The aggregators have this information. If need be, CEC could later conduct random audits to verify that customers are not dual enrolled and that aggregators are fulfilling their legal duty not to dual enroll.

Second, device-level telemetry can verify whether or not a specific device was "dispatched" by the aggregator. Last summer the U.S. Department of Energy (DOE) and the National Renewable Energy Laboratory published a protocol for estimating energy

[3] Gridwell Consulting derived this value from CAISO's September 2022 Market Report, caiso.com/Documents/SummerMarketPerformanceReportforSeptember2022.pdf.

savings from smart thermostats in residential programs that relies upon device-level telemetry.[4] CEC Staff contributed to this notable protocol, which was:

> "[D]eveloped in close collaboration with the nation's leading experts under the Uniform Methods Project (UMP) and applies to evaluating smart thermostat replacement and optimization programs that meet specific conditions. The UMP protocols provide straightforward methods for evaluating gross energy savings for each of the most common residential and commercial measures and programs offered by ratepayer-funded energy efficiency programs in the United States."[5]

DOE's protocol outlines how aggregators can simply cross reference device telemetry with the whole-house meter data to verify that the DR "event" actually triggered the device controls, which in turn led to a load reduction. This can all be done in a similar fashion to Measurement & Verification protocols for DR and Energy Efficiency programs that the CPUC oversees. A third-party verifier can conduct random data audits of aggregators after real or "test" events to ensure that program dollars are being well-spent.

IV. Conclusion

Generac appreciates the chance to submit these comments, and we look forward to continued engagement with the CEC and staff to expand distributed energy resources supporting California's energy system. Please do not hesitate to contact me at Meredith.Roberts@generac.com with any questions regarding our comments.

Sincerely,

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[4] Stewart, James I., Carly Olig, Sepideh Shahinfard, Ken Agnew, Stefanie Wayland, Zachary Horvath, Jason Lai. 2023. Smart Thermostat Evaluation Protocol: Dec 2016 – May 2023. Golden, CO: National Renewable Energy Laboratory. NREL/SR-5R00-86175. https://www.nrel.gov/docs/fy23osti/86175.pdf.
[5] *Id.*