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Tesla Comments on DSGS and DEBA Budget

Additional submitted attachment is included below.

August 2, 2024

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

Re: Docket No. 22-RENEW-01—Tesla Comments on DSGS and DEBA Budget

California Energy Commissioners and Staff:

Tesla submits these comments in response to the Commission's July 23, 2024 email alerting parties to budgetary changes impacting the Demand-Side Grid Support (DSGS) and Distributed Electricity Backup Assets (DEBA) program as a result of the Budget Act of 2024.[1] We understand that the Commission has a challenging decision before it in how to allocate the $75 million appropriated by SB 108 between DSGS and DEBA, given the important role both programs play in ensuring reliability.

Tesla has been actively engaged in the formation of both programs and commends the Commission and its staff on thoughtful program design. Both programs are important. While DEBA promotes the deployment of distributed energy resources (DERs) that can be leveraged for grid support, DSGS harnesses existing DERs to provide much-needed clean energy and capacity during times of grid stress, helping reduce costs and lower emissions. Prior to the passage of the Budget Act of 2024, Tesla anticipated active participation in both programs.

Nevertheless, given the current budget situation, we encourage the Commission to allocate the full $75 million appropriated by SB 108 to DSGS. It is far better to have one fully funded program that demonstrates the value of Virtual Power Plants (VPPs) and provides a robust contribution to reliability and state climate goals, than to have two DER programs that both fall short of their potential due to insufficient funding.

[1] AB 107 (Gabriel, Chapter22 Statutes of 2024); SB 108 (Wiener, Chapter 35, Statutes of 2024)

I. DSGS is a Well-Designed Program that is Already Providing Grid and Ratepayer Benefits

The Commission created DSGS pursuant to AB 205, which established the Strategic Reliability Reserve to help stabilize the grid during extreme weather events that threaten electric reliability. In establishing DSGS Incentive Option 3, the Commission wisely created a program pathway that facilitates the aggregation of California's large and growing pool of residential behind-the-meter (BTM) batteries into Virtual Power Plants (VPPs) that can be dispatched as a single resource in response to grid conditions.[2]

While the technology to enable VPPs has existed for more than a decade, enablement of battery-based VPPs has been inhibited by a number of policy blockers. For example, early programs designed to dispatch BTM resources based on wholesale market conditions[3] did not work for batteries, due to various program design issues and CAISO market rules, such as inability to recognize energy exported to the grid, unworkable baseline rules and expensive metering and telemetry requirements.

DSGS Option 3 solves these challenges by creating a participation pathway that allows residential BTM batteries to be dispatched in response to CAISO wholesale market conditions without directly participating in the wholesale market. The program design affords the flexibility and streamlined enrollment necessary to allow small residential customers and aggregators to participate while still providing the benefits of wholesale market dispatch.

Summer 2024 is the first full season DSGS Option 3 has been available, and the program is already proving itself to be valuable. Since its inception, DSGS has Option 3 has enrolled more than 175 MW of capacity from distributed BTM batteries that are committed to support the grid during times of grid stress,[4] the equivalent of bringing a grid scale power plant online in a matter of months. These batteries are already supporting the grid. During the heat wave of mid-July 2024, DSGS Option 3 contributed to Tesla's largest single VPP dispatch ever – more

[2] California currently has more than 2.5 GW of BTM battery capacity located mostly at single-family residential properties, and is adding about 300 MW per year, according to https://www.californiadgstats.ca.gov/charts/

[3] CAISO's Proxy Demand Resource Tariff (PDR) and the CPUC's Demand Response Auction Mechanism (DRAM)

[4] CalSSA Comments on DSGS and DEBA Funding, July 26, 2024, p. 2

than 100 MW of battery dispatch during the critical hours of July 11 when wholesale market prices spiked to more than $600/MWh.[5]

The batteries dispatched through DSGS Option 3 provided significant ratepayer and environmental benefits by putting downward pressure on wholesale prices and mitigating greenhouse gas (GHG) emissions through the dispatch of clean energy to replace power that would've otherwise been generated by the dirtiest fossil plants.

While a cost-effectiveness analysis on the program has yet to be conducted, the capacity price paid to DSGS Option 3 participants for clean renewable power is similar to that paid to large fossil generators. For example, in 2023, the average price for capacity in the CPUC's RA program was $11.03/kW-month[6] compared with an average of $10.35/kW-month, $12.42/kW-month and $13.80/kW-month, respectively, for 2-hour, 3-hour and 4-hour options within DSGS Option 3. Procuring dispatchable capacity that is 100% renewable for around the same price as dirty fossil power is clearly a good deal for California.

II. It is not Clear that DSGS will have Sufficient Funding Absent the full $75 Million Allocation

Whether DSGS has sufficient funding depends on how many participants enroll in the program, how much capacity those participants commit, and their level of performance. Since new participants can enroll at the start of each month, and performance isn't calculated until the end of the program season, it won't be known with certainty how much funding will be used in a particular program year until that year is over. For this reason, it makes sense to build in significant budgetary cushion to ensure the program can stay open to all customers and aggregators who wish to participate through 2028, and the $75 million provided by SB 108 can provide that cushion.

III. Budgetary Certainty is Important for the Success of DSGS

Participation in a program like DSGS requires investment in software, personnel, and other resources to recruit customers and dispatch the aggregation. Companies make those investments with the expectation that programs will proceed for multiple years and will not be

[5] "Tesla's California virtual power plant delivers 100 MW to help the grid," by Fred Lambert, Electrek, July 12, 2024

[6] California Public Utilities Commission, *2022 Resource Adequacy Report, May 2024*

ended prematurely due to unexpected budgetary shortfalls. Moreover, customers enrolling in programs like DSGS generally do so with the expectation that these are multi-year programs, and some customers might factor potential future program revenues into their battery purchase decision. Revenues from programs like DSGS may be particularly important for residential solar and battery customers due to changes to the Net Billing Tariff (NBT) that will drastically reduce the value of energy exported to the grid from BTM solar + battery systems starting in 2025.[7]

Finally, program stability and long-term certainty can have a positive impact on customer participation in and acceptance of VPPs. Positive customer experiences with DSGS in a given program year can spread through social media and encourage additional participation in future years. These positive experiences with a well-designed and cost-effective program can also encourage other jurisdictions to adopt the VPP model. A positive feedback loop of this type could be jeopardized if the program is hindered by to budgetary issues.

IV. DEBA is a Worthwhile Program but Should not be Funded at the Expense of DSGS

Tesla previously filed comments in support of the DEBA "Draft Solicitation Concept" issued on February 23, 2024, which included several program design recommendations, including allowing energy storage to participate in Group 3, easing the dual participation restrictions, and creating an incentive carve-out for Group 2. Our view at the time was that DEBA provided a valuable compliment to DSGS, where DEBA could help defray the up-front cost of installing new BTM resources capable of grid support, and DSGS could fund the ongoing grid support function of existing resources.

With the recent budget cuts, however, it is clear there is not sufficient funding to support the Draft Solicitation Concept as written. Even if the entire $75 million provided by SB 108 were allocated to DEBA, it would mean only $18 million going to Group 1 (New Large DER Installations) and $57 million split between Group 2 (VPPs) and Group 3 (Load Flexibility). These funding amounts are likely insufficient to fund more than a few winning bidders in a grant funding opportunity, with those bidders likely having insufficient funding to serve more than a fraction of customers wishing to participate.

[7] On Aug. 1, 2024, the CPUC voted to approve a Decision Adopting Changes to Avoided Cost Calculator in Rulemaking 22-11-013, which will significantly reduce the value of exported energy from NBT battery systems.

Moreover, moving forward with the DER Draft Solicitation Concept would result in additional funding being spend on program administration costs, further depleting funds available for grid support services.

Thus, while Tesla is supportive of the DEBA Draft Solicitation Concept for DERs, it would be preferable to seek outside sources of funding, perhaps from a Legislative appropriation in a future budget year, rather than diverting funds from DSGS. From the perspective of program participants, it is better to have one fully-funded program than two insufficiently funded ones.

V. Conclusion

Tesla greatly appreciates the opportunity to comment on the DSGS and DEBA budget issues laid out in the Commission's July 24 email.

Sincerely,

/s/ *Damon Franz*

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Tesla