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Tesla Comments on DEBA Draft Solicitation Concept

Additional submitted attachment is included below.

March 15, 2024

California Energy Commission

Docket Unit, MS-4

715 P Street

Sacramento, CA 95814

Re: Docket No. 22-RENEW-01—Comments on Distributed Energy Resources For Reliability Draft Solicitation Concept

California Energy Commissioners and Staff:

Tesla appreciates the opportunity to comment on the Distributed Energy Resources for Reliability Draft Solicitation concept paper, issued by Commission Staff on February 23, 2023. The concept paper proposes a competitive grant framework for soliciting clean resources for to provide emergency supply or load reduction during grid stress events through the Distributed Electricity Backup Assets (DEBA) program as part of the state's Strategic Reliability Reserve. As California strives to decarbonize the electric grid while electrifying the transportation and building sectors, DEBA will be an important vehicle for helping maintain reliability by quickly and efficiently bringing online new clean distributed resources.

I. Introduction

According to the California Distributed Generation (DG) Statistics database, there is now more than 1.7 GW of behind-the-meter (BTM) battery energy storage (BES) systems interconnected to the CA electric grid, and the resource is growing rapidly, with about 250 MW added per year from 2020 to 2023.[1] The vast majority of these batteries are located at single-family, residential sites. Such batteries are capable of remote dispatch in response in precise response to grid system conditions, making them highly valuable resources for greenhouse gas (GHG) emissions reduction and reliability.

[1] https://www.californiadgstats.ca.gov/charts/

While California's BTM battery resource is technically capable of providing precise grid response when aggregated together as a Virtual Power Plant (VPP), policy to enable and bring VPPs online is still under development, and the MW quantity of VPP capacity brought online to date has fallen far short of its potential. This is partly because battery-based VPPs do not fit neatly into the pre-existing demand response (DR) paradigm centered on traditional load reduction. For example, the CAISO's Proxy Demand Resource (PDR) tariff, which intended for market-dispatch of BTM resources, does not recognize energy exported to the grid, making it unsuitable for battery resources.

The Draft DEBA Solicitation Framework issued by staff on February 23 presents a practical and workable framework for bringing new VPPs online relatively quickly using newly deployed resources and dispatching them in a manner that provides grid benefit. In these comments, Tesla provide recommendations for changes we feel could improve program implementation.

II. Recommendations

1. The Solicitation Should Not Exclude Energy Storage from Option 3

Under the draft solicitation framework, "Option 3: Load Flexibility Aggregation Programs" is a participation option uniquely available to Load-Serving Entities (LSEs) wishing to bring online BTM reliability resources either directly or through a contract with a third-party aggregator. Under the current proposal, eligible technologies are new and existing "load flexibility" equipment, which includes heat pumps, water heaters, managed electric vehicle (EV) charging, supervisory control and data acquisition (SCADA) systems, demand flexibility software and building energy management systems (BEMS). Energy storage is explicitly excluded from the list of eligible technologies.[2]

Tesla recommends this exclusion be eliminated, and that battery storage systems be considered an eligible technology under Option 3 for the following reasons.

First, BES systems are increasingly deployed as part of a suite of devices that work together to comprise a load management strategy for commercial, as well as residential, use cases. For

[2] Draft DEBA Solicitation Framework, p. 16

example, a commercial building might deploy load controls, smart thermostats, dimmable lights, managed EV charging and a battery as part of a comprehensive system managed by a SCADA or BEMS system. Likewise, a single-family home might use a smart thermostat, controllable heat pump, battery system and smart EV charger to manage energy costs. To the extent that Option 3 is targeting energy management systems using suites of technologies, excluding BES from the device ecosystem would unnecessarily limit the breadth of eligible projects. In effect, customers wishing to participate in Option 3 would be prohibited from deploying a battery, since it is not clear if/how battery charge/discharge behavior could be "backed out" of the Measurement and Verification of Option 3 program performance.

Second, California's LSEs are in a unique position to engage their customers in the deployment of new technologies like battery storage, given their existing relationships with those customers. Excluding batteries from Option 3 misses an important opportunity to leverage those relationships for the deployment of a technology that is a critical element of the state's strategy to meet climate goals.[3] Furthermore, disallowing LSEs from deploying batteries as part of the their Option 3 load management offerings deprives the investor-owned utilities (IOUs), municipal utilities and Community Choice Aggregators (CCAs) of an opportunity to gain experiencing deploying and integrating a critical and prominent new technology into their service areas.

2. A Minimum of $75 Million Should be Carved out for Option 2

The draft solicitation guidelines allocate $60 million for Group 1 (New Large DER Installations) and a combined $190 million for Group 2 (VPPs) and Group 3 (Load Flexibility).[4] This creates a situation where Group 2 projects are competing directly with Group 3 projects. Theoretically, the entirety of the Group 2/Group 3 budget could go to either Group 2 or Group 3 projects if those projects come in at the lowest price.

To ensure that emerging technologies are allocated some amount of funding, the solicitation should set aside a minimum amount – we recommend $75 million – for VPPs even if those projects submit bids that are higher than those of the Option 3 Load Flexibility projects. Of

[3] For example, CPUC Decision 24-02-047 directs the CA LSEs to procure 15.7 GW of battery storage by 2035, roughly 28% of the total resources procured

[4] Draft DEBA Solicitation Framework, p. 6

course, if less than $75 million worth of VPP projects is submitted, Group 3 projects should have access to the unused funding.

Carving out a minimum amount of funding for VPPs will ensure that LSEs – which have unlimited access to customer contact information and large marketing budgets – do not consume the entirety of the $190 million combined Option 2/Option 3 funding.

In addition, there are a number of reasons why it could be challenging to directly compare prices between Group 3 Load Flexibility Resources and Group 2 battery backed VPPs. For batteries, the power output and duration are clearly defined as part of the product specifications, such that the capacity likely to be delivered by the resource is fairly certain at the outset. By contrast, for load management, delivered capacity will depend on a number of variables that are not necessarily known in advance – for example, how much the usage of devices under load management will coincide with dispatch hours. If a device enrolled in a load management program is not being used when an event is triggered, that device will not have the ability to make a capacity contribution. For this reason, comparing the $/kWh cost of battery VPPs with load management based on capacity potential might not accurately represent the capacity that is actually delivered from each resource.

Finally, load flexibility technologies have been funded through California LSE demand response programs for decades, while battery VPPs are a fairly new technology. The Commission should ensure that at least some amount of funding is allocated to this emerging and valuable resource.

3. DEBA-Funded Projects Should be Allowed to Participate in DSGS

Under the proposed framework, assets receiving a DEBA award are prohibited from enrolling in the Demand-Side Grid Support (DSGS) program. Tesla recommends this prohibition be eliminated and that DEBA-funded projects be allowed to enroll in DSGS.

While we understand that this prohibition was likely put in place to ensure that projects do not receive windfall payments and are not funded beyond levels needed to deploy the equipment, there are some practical reasons why it makes sense to allow dual enrollment. First, DEBA project funding is awarded on a competitive basis, with only the lowest- priced bids receiving funding. To the extent that DEBA applicants are able to access other revenue streams, those bids will be lower, which will allow DEBA to fund a greater number of projects.

Second, in our experience, customer satisfaction and participation in VPP programs is typically highest in programs that have ongoing performance payments, as opposed to an up-front payment with an ongoing obligation to perform that is not compensated on a marginal basis. As the VPP aggregator, Tesla would pass the DEBA award on to the customer in the form of a discounted battery, and we would take the performance risk that the customer may drop out of the program at some point. It would be preferable from a program management perspective if the customer were able to access ongoing performance payment to keep them engaged and participating.

4. The Schedule Should be Adjusted to Provide one year from Award to First Milestone

Under the Draft Program Guidelines, the notice of proposed awards for the General Market Program would be posted in July 2024, with the first milestone for 25 percent of total project capacity installed by May 1, 2025, which would provide only 8 or 9 months for awardees to meet the first milestone. Subsequent milestones would occur annually after that on May 1, 2026 and May 1, 2027.

Having only 8 or 9 months to complete the first project milestone could be challenging, since awardees will need some time to develop customer communications and outreach materials prior to beginning customer enrollment. And this 9-month window could be even shorter if there are administrative delays approving the final solicitation guidelines, executing the solicitation, evaluating bids and making awards. Thus, we recommend making the first project milestone one year after the date the project award is approved by the Commission. This way, if there are unforeseen delays, awardees will not be facing an unrealistic deadline for first project milestone.

II. Conclusion

Tesla greatly appreciates the opportunity to comment on the Draft DEBA Solicitation Concept, and we thank Commission staff for their hard work on the program design.

Sincerely,

/s/ Damon Franz

Damon Franz

Senior Managing Policy Advisor, Tesla