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August 31, 2023

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

Re: Docket No. 22-RENEW-01—Post Workshop Comments on Distributed Electricity Backup Assets Program Draft Guidelines

California Energy Commissioners and Staff:

ElectricFish Energy, Inc. ("ElectricFish" or "EF") is a California-based manufacturer that is pioneering the grid edge infrastructure of the future, starting with a battery-integrated DC fast-charging system that maximizes grid support and future-proofs energy investments as the grid evolves. EF has discussed its technology with CEC staff in the context of the DEBA program and applauds the Draft Guidelines for their inclusion of "battery-backed electric vehicle charging" in the list of eligible projects.

These post-workshop comments are intended to help the Commission design DEBA GFOs to minimize costs and maximize long-term benefits in the deployment and operation of an aggregated fleet of such EV charging installations (hereafter referred to as the "EF Project").

While EF is a relatively young company, it is well experienced in CEC programs, having secured a RAMP grant in May 2023 and CalSEED award in June 2022. Also, the company's Acting VP of Policy, Ted Ko, has over a decade of experience in California energy policy, project solicitations, and grant opportunities.

I. Draft Guidelines Comments

<u>Terminology</u>

Throughout the DEBA Guidelines, EF recommends that the project specific terminology be clearly specified and consistent. The Draft Guidelines vary the use of terms such as "resource", "property", "asset" and "project" as well as roles such as "applicant", "owner" and "operator".

For example, in the screening criteria proposed in Table 3 it is unclear whether all the possible combinations of applicant, owner and operator are eligible to pass Stage 1. Specifically, these criteria do not seem to accommodate the particular [applicant, property owner, asset owner, asset operator] scenario contemplated for the EF Project.

To simplify and clarify all of the DEBA and GFO rules, EF proposes the following definitions:

- Each application into a DEBA GFO is for a **Resource** (not an asset, project, or property)

- A **Resource** can include one or more locations, called **Sites** (the term "property" should not be used as it can cause confusion between locations and assets)
- A **Site** can have one or more **Assets** (an Asset is a physical installation of a technology. In the case of demand response load controls, the building load is the Asset)
- The **Applicant** is the entity signing the contract with the Commission for participation of the **Resource** in DEBA

Overall, all DEBA rules and GFO provisions should concern the Applicant and the Resource and should not be concerned with the contractual and financial arrangements between the Applicant and the entities that own Assets or Sites or operate the Assets that make up the Resource. This should greatly simplify the design and administration of the DEBA program while allowing the broadest innovation in both technical solutions and business models.

<u>Administration</u>

To further reduce administrative costs, EF recommends the following:

1. Set the minimum Resource size to 100 kW

The Resource size is not the physical capacity of the installed Assets. The Resource size is the capacity that the Applicant commits to being available to meet the performance requirements. 100 kW has been established as a reasonable minimum for energy assets that are contributing to the reliability of the grid, e.g. FERC Order 841 requires the RTO/ISOs to allow storage assets as small as 100 kW to participate as individual resources in their markets

2. Measurement

All program metrics should be measured at the Resource level, not the Asset level. For example, to meet the performance requirements, the EF project would be measured at the aggregated performance of all of the EV charging sites in the Resource.

Furthermore, in measuring the behavior of assets (to compile into the aggregated performance), any asset that can be directly measured (e.g. with a dedicated meter or with inverter data) will be allowed to directly measure without using baselines / counterfactuals.

<u>Applications and Criteria / Scoring</u>

1. Site Control

It is critically important that any DEBA GFO does not require an Applicant to identify or have "control" over Sites that will be included in the Resource before submitting an application. The primary reason for this is that site acquisition can be expensive, and for innovative companies and project ideas, it can be very difficult to invest in site acquisition before the Applicant knows the Resource will get a grant.

For an EF Project in particular, the Resource will provide greater benefits if Sites are identified after a grant award. An EF Project will use the company's innovative Community Resilience Score (CoRe Score) software to identify the optimal locations for deploying EF systems, based on both grid needs as well as non-grid objectives, such as LMI community benefits. This analysis will be most effective after EF knows the status of the grant and thus the economics of different project locations.

2. Loading Order

The DEBA Guidelines should specify that behind-the-meter energy storage and battery-backed electric vehicle charging are classified at the same level in the Loading Order as Demand Response resources. The EF solutions in particular have similar advantages as DR resources in terms of speed and cost to deploy, and these types of battery solutions are "better" DR resources with respect to helping the reliability of the grid.

3. Moveability

The EF solution is a first-of-its kind for installed grid edge infrastructure. Until now, utilities have not been able to install distributed infrastructure that can be easily moved and re-used as grid needs change. Because the core EF product is containerized and designed to interconnect to the grid without significant study or upgrades, an Asset in an EF DEBA Resource can be moved and put back into operation in a matter of days.

This re-use of Assets saves money in the delivery of grid benefits and thus stretches the DEBA incentive dollars farther.

For reference, this exact issue was highlighted in the PG&E 2023 R&D Strategy Report. In Problem Statement 2, under Integrated Grid Planning, PG&E states "Load growth…will require upgrading T&D infrastructure more frequently, much of which will have useful life remaining." And so, PG&E is seeking "novel technologies to… Maximize the safe reuse and/or extend the useful life of existing assets". Clearly, if a utility is able to invest in moveable distributed infrastructure assets, their grid investments will be more cost effective for ratepayers.

EF thus recommends that DEBA GFOs include "moveability" as a "bonus" score, providing additional points, when evaluating applications.

<u>Payment Structure</u>

EF understands that the overall design objective for award amounts and payment structure is for the program to obtain the most MWs of new reliability support per DEBA dollar and to have reliable emergency capacity come online as soon as possible. To that end EF offers the following recommendations to make the Resource deployment process more cost and time efficient.

1. Award Amount

EF recommends that the DEBA program does not impose award amount caps/minimum cost share requirements for two main reasons.

First, if the goal is to maximize committed MWs per incentive dollar, applications should be evaluated based on that metric without artificial limits on the requested award amount. Limits based on project costs can result in the opposite outcome when comparing Resources using different technologies.

Second, experience with California incentives, such as the SGIP for storage, has shown that rules based on self-reported project costs introduce significant added administrative friction and costs that are ultimately not worth it. Setting a minimum cost share on the deployment of these Resources does not further the objectives of the DEBA program when cost-efficiency is achieved through the $/MW metric. Furthermore, if it's clear that each GFO will be competitive, Applicants will be maximizing their cost share percentage to compete on the $/MW metric anyway. In that case, the minimum commitment becomes moot and there's little value to be gained from the additional paperwork for all stakeholders.

2. Payment Structure

EF recommends that payment structure be modified to disburse 50% of the total award upon the Resource being placed in service, while the 50% remainder is disbursed over a 5-year period. As referenced above, in order to be competitive, Applicants will develop their Resources with tight margins, where the full award will be necessary to make projects viable. Thus, withholding 50% of the award will be more than sufficient to ensure the Resource meets the performance requirements.

Furthermore, for cost-efficiency, the DEBA program should seek to withhold as little as necessary that still ensures the Resource will perform. The more that is withheld, the higher the financing costs for projects, which means that the total cost per deployed MW is higher. So, the higher percentage of the award that is disbursed up front, the more MW will get deployed per dollar of the DEBA budget.

<u>Performance Requirements</u>

AB205 specified that "All funding recipients under the program shall participate as an on-call emergency resource for the state during extreme events" without providing further restrictions on which set of emergency resource programs the Resources must participate in. California's history of DER programs has shown that providing flexibility to resources in how they provide services and value to the grid allows for innovation and helps reduce costs.

California's Demand Response dual participation rules are a prime example of the problems that can occur when trying to restrict program participation. The rules on what was and wasn't allowed across the many DR programs became extremely confusing and needlessly complex – resulting in wasted administrative costs for the participants and program administrators. And hundreds of MW of technical DR potential were "left on the table" for years, unavailable to the help the California grid or meet the state's DR goals due to poorly designed rules.

EF recommends that all DEBA funded Resources should be given the option to satisfy this provision of AB205 by enrolling in an approved emergency resource program such as DSGS or ELRP. If a Resource chooses this option, it must enroll in the program at the same capacity (MW) that was applied for in DEBA. And in this case, the performance requirements that must be met to receive the full award would be based on the performance metrics of that program.

For Resources that do not take the option to enroll in an existing program, each GFO will specify its particular performance requirements. But all GFOs should follow the same basic parameters. Along with the conditions by which a Resource should dispatch, the GFO should specify expected and maximum duration of dispatch within the dispatch window, as well as expected and maximum number of dispatch calls within a season. If the dispatch window is the full proposed 4-10pm window, then no GFO should require a Resource to dispatch its full committed capacity across the entire window.

II. Commission Questions

1. How much time does your organization need to respond to a GFO?

GFO response time will depend on the above recommendation regarding site identification and control. If site control is required before application, then the time required to respond to a GFO will be significantly longer.

One could argue that moving site acquisitions efforts to after a Resource has been granted an award would only move that work to a different point in the process without changing the total time to deploy. However, EF contends that acquiring the same number of sites after the award would be significantly faster than doing site acquisition before application, because the economics are much more certain.

2. Are there specific administrative elements that could be included to streamline the application process, e.g. a letter of intent?

The stated example of "letter of intent" suggests that a letter of intent from one of the entities could be a requirement of the application process. As with proof of site control, such requirements do not streamline the process and can instead add friction.

It is reasonable to require Applicants to submit a status report on project milestones such as letters of intent, site control, or interconnection as part of the application along with a planned timeline for placing the Resource in service. This would allow the GFO to prioritize (e.g. score higher) those Resources that will be available sooner. However, none of those milestones should be a requirement to be achieved for a Resource to be eligible to apply.

Conclusion

ElectricFish appreciates the opportunity to provide comments on the Draft Guidelines for the DEBA Program and is looking forward to participating in the first available GFO. We believe the above recommendations would greatly improve the design of the program and help ensure that the California grid gets the most MW of new reliability resources possible from the DEBA budget.

Signed,

Ted Ko
Acting VP of Policy
ElectricFish Energy, Inc.