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Comments of Advanced Energy United on DEBA Draft Solicitation Concept

Additional submitted attachment is included below.

March 15, 2024

California Energy Commission
1516 Ninth Street
Sacramento California 95814
Re: Docket 22-RENEW-01 – Demand Side Grid Support

Comments Advanced Energy United
on the Draft Solicitation Concept
Distributed Energy Resources for Reliability

1. Introduction

Advanced Energy United ("United") is a national business association representing roughly 100 companies across the advanced energy sector, including many within the DER space including distributed solar and energy storage developers, microgrid developers, energy efficiency and demand response providers, electric vehicle charging hardware and software providers, DER aggregators, and other technology solution providers at the grid edge.

United appreciates the opportunity to provide feedback on the Draft Solicitation Concept titled "Distributed Energy Resources for Reliability" proposed under the Distributed Electricity Backup Assets (DEBA) Program. United commends the California Energy Commission's ("CEC") leadership and staff in seeking stakeholder input into the solicitation concept before a solicitation is issued. Our comments below are structured thematically and roughly in the order of the "Questions for Stakeholders" though not every question is addressed.

2. **Structure and timing of the Solicitation**

The Solicitation Concept as proposed would be an exceptionally big and complex solicitation. Each Group individually is complicated, with many remaining unanswered questions that will take time by CEC staff before a GFO is issued, and more time by companies to prepare competitive bids after a GFO is on the street.

United appreciates the urgency of proceeding expeditiously. We support this goal, and ask the CEC to consider carefully the comments that we and other stakeholders present in response to the Concept. If the time to respond to the concerns raised for the comprehensive package is longer than the time to present narrower programs, then moving forward with narrower GFOs with a larger budget may present less risk. Put another way, if certain group(s) are “ready to go” sooner than others, then breaking up the Solicitation Concept into three GFOs may be less risk than waiting for the full package.

In particular, United suggests that Groups 1 and 2 may be a more developed at his time than Group 3, for several reasons. In general, United finds that Group 3 eligibility, matching, readiness, performance, and reporting requirements are relatively under-specified and potentially less rigorous than requirements for Groups 1 and 2. United suggests that Group 3 needs additional work, and that this work should not delay the GFOs for Groups 1 and 2.

Even with an expedited schedule, United requests that the CEC set the application due date at least 3 months after the GFO is issued. Two months is simply too little time to develop competitive bids, especially depending on the degree to which sites and customers must be pre-identified.

3. Available funding

The Solicitation Concept proposes that the funding includes $62.5 million that "is available only for projects located in publicly owned utility (POU) service territories," and that the solicitation "seeks to award at least $125 million to projects located in or benefitting Disadvantaged Communities (DACs)," but it does not say how these goals or restrictions would be achieved. There is a separate application period for DAC projects that would account for $30 million, and preference points for DAC projects, but no other explicit provision.

United seeks clarification about how these goals and restrictions could be applied across groups 1,2, and 3. If applied haphazardly, applicants would have little insight into how much funding may be available, but if the restrictions were distributed equally then for instance there would be little to no funding available for Group 1 projects in non-DAC IOU territory. United suggests that the CEC consider applying percentages equally for both goals, that is 25% of each group be awarded in POUs, and 50% of both POU and IUO awards benefit DACs.

4. Maximum and minimum awards

United requests that the CEC reduce the maximum award sizes, especially in Groups 2 and 3, to increase the number of projects that will be awarded, for several reasons. First, a greater diversity of projects will reduce the risk of any specific project failing to perform and increase the resiliency of the portfolio to any shared risk across projects. In addition, project diversity fosters a competitive marketplace and encourages the sustainable development of the industry. And as we have commented in this and other DSGS and DEBA contexts, these projects will provide valuable data for refining and improving California's DER, DR, and VPP programs over time, and a greater diversity of projects expands that experience and data. Lastly, as we comment in regard to minimum project size below, simple mathematics suggests that a greater number of companies constructing feasible project sizes is likely to bring more capacity online quicker than one or two companies constructing massive projects. Finally on this subject, United emphasizes the importance of separating the Group 2 and 3 budgets especially given the large maximum awards that could claim the full budgets in two projects.

5. Match requirements

United is concerned that the solicitation concept proposes a match structure that fails to achieve the goals of the DEBA Guidelines and is significantly different than the example structures that were extensively discussed with stakeholders, or the Commission, when the DEBA Guidelines were developed and approved. Specifically the required 50% match funding requirement is now proposed to be net of Federal tax credits. Previously, this 50% match was proposed to be based on the gross eligible project cost, regardless of federal funding. This change to a net eligible project cost reduces the potential CEC award from 50% of project costs to 35% or less, depending on various federal tax credit bonus adders.

Not only is this reduction damaging to applicants and projects in Groups 1 and 2, it runs counter to the expressed intent of the DEBA program. Both the DEBA Guidelines and the draft solicitation concept take pains to note the goal to "leverage federal funding opportunities."[1] However, if CEC funding is net of federal tax credits, then there is by definition no leveraging,

[1] DEBA Program Guidelines, 1st Edition, October 2023

but simply a 1-for-1 replacement of federal funding for state funding or vice versa. Applicants are indifferent to federal or state funding in that case, and in fact are likely disincentivized from any additional application time and expense. United urges CEC to restore the original proposal to calculate any match requirement on gross project costs, or alternatively to count federal tax credits among the allowable match funding, to create an incentive to leverage federal funding.

In addition, United members have pointed to potential timeline conflicts between match funding sources. In particular, applications for the federal Grid Resilience and Innovation Partnership (GRIP) funding awards are due May 22. United suggests that CEC consider an early-application period for applicants seeking federal funds and/or that there be a consideration in the GFO scoring criteria for in-progress match funds, and a mechanism for recognition of this potential funding.

Lastly, it appears that the solicitation concept does not propose a matching requirement for Group 3 projects. United seeks further clarification of this point, and if that is indeed the proposal, we would request some explanation of the reasoning behind the proposal. This lack of a match requirement for the Group 3 funds is particularly perplexing as many projects envisioned in Group 3 – utility-operated or -contracted demand flexibility programs – are already extant and substantially funded by ratepayers, especially in IUO territories.

We recognize that there is substantial opportunity for the expansion of these programs, and the creation of new programs, especially in CCA territories. However the current discrepancy in requirements is potential inequitable and discriminatory not just to Group 1 and 2 projects, but also to the companies that must leverage other funds to meet match requirements. United requests that the CEC address this by:

- requiring some identification of how and why the proposed program is additional to programs already funded by ratepayers,
- requiring a substantial match for Group 3 funding where programs are already funded by ratepayers, or
- potentially excluding IOUs from Group 3.

6. Dual participation

United finds the prohibition on participation by resources sited at a service account enrolled in another load reduction program is problematic for several reasons and we ask for more reconsideration of the topic.

It appears that one issue may be in preventing dual participation that is dependent on site address for verification. But as was pointed out in the DSGS proceeding, there are many reasons and circumstances under which the same service account may have resources enrolled in an existing program and still be an excellent candidate for hosting new DEBA assets. In fact, customers and sites hosting existing participating resources are likely among the best candidates for expanding their DER assets and/or adding capabilities and enhancing the pool of responsive resources. Excluding participation by these service accounts risks losing a substantial share of the most appropriate resource sites.

We also urge a re-consideration of the prohibition on participation in “another load reduction program.” The intent of the legislature in creating the DEBA program, as a complement to the

DSGS program, was to incentivize the expansion of the backup asset base. Of course, the agency and taxpayers should ensure that those assets are used and useful for emergency backup purposes. CEC has decided that the performance-based payments for 50% of the DEBA award is an appropriate mechanism to ensure performance, but existing emergency programs, including DSGS, ELRP, BIP, and others, can also serve this purpose. We urge CEC to re-consider participation in these programs as an alternative performance demonstration pathway.

Lastly, we seek assurance that state incentives that are not load reduction programs are allowable with DEBA funding, for instance the Self Generation Incentive Program.

7. Project Readiness

Most importantly, United urges the CEC to re-consider the requirement for 25% capacity installation by May of 2025. This timeline is barely 8 months after awards may be formally approved in September, spanning the winter season, and is likely simply infeasible for a majority of projects. United appreciates the CEC's desire for speedy implementation and offers the following alternatives for requiring steady progress and near-term on-line capacity:

- Moving the initial project milestones, e.g. 25% by end-of-year 2025, 50% by Summer 2026, 100% by Summer 2027.
- Require project-specific project timelines, and tie payment more closely to installed capacity
- Evaluation Criteria and/or Preference Points explicitly awarding greater points for the percent of project capacity credibly planned to be brought online each quarter

Further, United urges the CEC to recognize that factors beyond the applicants' control can have significant negative impacts on project timelines. In particular, United urges the CEC to create exceptions to progress requirements in documented cases of interconnection delays and supply chain shortages.

8. Minimum project capacity requirements and maximum award sizes

United urges the CEC to reconsider the minimum project sizes, especially for Group 2 projects. 15 MW (of 4-hour normalized rated capacity) developed over 3 years is simply a nonstarter for residential VPPs. United recommends that the minimum project size be considered in tandem with the maximum project awards to ensure a robust GFO response that creates a maximum near-term impact. A larger number of companies engaged in building a larger number of feasible size projects will have a greater near-term impact than one or two companies ramping up infeasibly large projects over time.

For these reasons, United recommends that the minimum project size for Group 2 be reduced to no larger than 5 MW rated capacity, and the maximum award sizes should be reduced to $10 - $20 million.

9. Eligible technologies

United strongly recommends the CEC clarify that DEBA funding is applicable to costs for combined solar + storage installations, at least for the first three categories of eligible costs (Project pre-engineering and design; Engineering plans and specifications; Project installation, construction, modifications, and/or commissioning). Solar + storage systems use solar PV as the energy source in an integrated, dispatchable *system*. It is conceptually inconsistent, overly burdensome, and unnecessarily dilutive for applicants to portion out the costs in these three categories as being applicable to battery storage versus solar PV. CEC should clarify that while solar PV assets specifically may not be eligible, the design, engineering, and construction costs of combined solar + storage projects are eligible.

Secondly, United seeks clarification on the eligibility of Load Flexibility technologies in Group 2. The text of the solicitation concept on page 15 says load flex technologies are not eligible, but the workshop presentation on slides 19 and 20 says they are. Load flexibility technologies are explicitly included as eligible under Group 1 in both documents, which, given the similarities between Groups 1 and 2, is a confusing omission. Load flexibility technologies – and the software that enable then – are equally important to Group 2 projects as Group 1. To effectively incentivize the full range of assets that DEBA funding can bring to bear, the costs of load flex technologies – including both hardware and software costs – should be eligible for funding in Group 2.

Not including load flexibility technologies in Group 2 would be counterproductive and illogical. For one thing, the same technologies that allow control of load flexibility also allow control of energy storage systems, including battery storage, thermal energy storage, and EVSE, and potentially certain distributed generation systems as well. Further, systems that allow control of load flexibility along with DER and DG allow for a substantially greater response to prices and events from existing and future flexible devices, whether this response would be recognized as performance under DEBA (as discussed under performance pathways below) or is facilitated under other programs outside or subsequent to the DEBA performance requirements. To exclude load flexibility technologies under Group 2 risks losing this additional capacity and capability from existing and future resources.

Similarly, United suggests that “managed charging” be included under the list of eligible technologies for Group 2, which currently only specifies “bi-directional EV chargers” as being eligible. This seems to indicate that only projects in which EVs export to the grid will be eligible for funding. However, any control systems that allow EVs to export would also allow EVs to pause charging based on signals from an aggregator, so “managed charging” and “bi-directional EV chargers” are fundamentally inseparable. Furthermore, it’s doubtful that a significant number of vehicles will be equipped with bi-directional charging capabilities by May 2027, whereas almost all vehicles will have the ability to participate in managed charging programs. Excluding this technology class under Group 2 unnecessarily limits the number of resources that can provide capacity to the grid under DEBA’s Group 2 funding category.

Conversely, United would like to confirm and urge CEC to ensure that Group 3 eligible technologies include controllers and other hardware and software capable of managing and dispatching storage devices and vehicles. Excluding these technologies would exclude a large range of potential response from resources that are often co-located with other flexible load.

We also seek clarification about the eligibility of Virtual Net Billing Tariff installations (or VNEM installations with storage). As Front-of-Meter resources, are these projects eligible to participate in group 1? Conversely, are VNBT/VNEM projects excluded from Group 2 if they are FTM?

10. Performance pathways

United finds that Pathways 1 and 3 lack any guidance as to when resources are expected to dispatch. Performance will be measured during the top 100 net load hours, but resources do not know when these hours will be and risk either over- or under-dispatching. This uncertainty and risk appear unnecessary, as price triggers as used in Pathway 2 (and in DSGS and other programs) could be applied in both Pathways 1 and 3.

Regarding price triggers, United responds to CEC that the $100 MWh trigger in GROUP 2 is far too low and will certainly cause either more dispatch of resources than is economically efficient, or will unnecessarily discourage potential participants and counterproductively reduce performance. United suggests a significantly higher price trigger, and at a minimum no lower than the trigger set in DSGS and ELRP of $200/MWh (along with EEA status). Similar to DSGS, United also recommends that responses to these price triggers be limited to the extended summer season (e.g. May-September) to avoid situations where high gas prices in the winter create continuous LMPs prices above the $200/MWh trigger, as occurred in December 2022.

In general, United would request the CEC to utilize existing performance pathways where available, or at least to make requirements aligned. We have heard from CEC the concern about double-compensation if resources stack DEBA with DSGS, and concern about the longevity of DSGS program funds, as reasons for not allowing DEBA resources to participate in DSGS. But resources can follow the DSGS *protocol* without receiving the DSGS *payments*. United urges CEC to allow DEBA resources to demonstrate compliance through the then-applicable DSGS methodologies. Besides administrative simplicity for both the CEC and the applicant/participants, this approach could also enhance customer recruitment as there would a parallelism to potential compensation structures for new or existing assets under the relevant programs.

11. Measurement and Verification

The Solicitation Concept discusses the M&V methodology for Group 3 load flexibility programs but does not specify the methodology for Group 1 and 2 load flexibility technologies. United urges the CEC to allow M&V for load flexibility technologies in Groups 1 and 2 to use the same M&V methodologies as allowed for Group 3.

The Solicitation Concept proposes to treat the hourly prices (LMP) and the emergency event (EEM) as multipliers for performance measurement. In the calculation of this multiplier, the EEM is treated as a simple index value of 1 or 2, but the LMP is written as calculated with their nominal dollar value. Of course, treating LMP as a nominal dollar value would both render the equation units meaningless, as well as resulting in wildly inflated and volatile values. United suggests the CEC create a simple and highly scaled index for LMP as well.

Lastly, United seeks clarification that the M&V methodology for microgrids that power onsite load would be based on the measured dispatch of DG and storage at the inverter or submeter.

12. Evaluation criteria

United appreciates the detail provided regarding evaluation criteria and preference points. However, within evaluation criteria categories, we would appreciate and suggest more definition of the weighting given to different requirements or objectives. In each category, there are from three to nine different items, and applicants are left wondering their relative importance. For instance, is maximizing the capacity per DEBA dollar (criteria 4a) of equal importance to the financial plan's risk identification and mitigation (criterion 4f)? We suggest the CEC consider some form of weighting to the subcriteria within categories.

And more specifically within the cost-effectiveness criterion, United seeks more clarity regarding the formula(s) applicants should use to demonstrate cost-effectiveness. Should this be presented as a gross project cost-effectiveness, net cost-effectiveness, or cost-effectiveness of asset acquisitions or of construction and other project expenses? In addition, Evaluation Criteria 8 is also insufficiently clear. To provide additional clarity, more details should be provided regarding how community and resiliency "co-benefits" will be defined.

Finally, United urges the CEC to remove the implied scoring metric that applicants with pre-identified customers will receive more preferential treatment than those who have not pre-identified host site customers. As United and other commentators have strongly advised throughout the development of the DEBA program, companies' ability to have certainty in the availability of funding before recruiting customers is often fundamentally critical to success.

Disadvantaging otherwise strong applications that do not have sites pre-identified is especially discriminatory against residential VPP providers who would be vying for DEBA funding to support deployment of battery systems at thousands of customer sites. It is impossible for VPP providers to conduct lead generation activities for a battery system that may not be installed for another 1-3 years, contingent upon the VPP provider in question winning a competitive solicitation.

13. Post-program data gathering and analysis

As United has argued in other DEBA and DSGS contexts, we see these programs as important testing grounds for gathering data on the real-world performance of DERs, DR, and VPPs that can assist in refining and improving the participation of these resources in the critical Resource Adequacy construct in California beyond the limited lifetime of these programs. For that to happen however, it should be planned now so that appropriate data can be gathered during the program and analysis performed after and presented in the right venues at CEC, CPUC, CAISO and elsewhere.

United urges the CEC to consider prior to the finalization of the Solicitation what data would be most helpful to this end and integrate the gathering and reporting of those data into program requirements. These data would include the lessons learned from the performance pathways including the relative participation and demonstration success of each, by technology type. Also relevant are the performance of specific technology types in response to specific compensation frameworks (as related yet distinct from the performance pathways). This data collection could also include data that could be synergized with other data sources, for instance combining DEBA resource performance data with CAISO loading data at specific sub-LAP nodes could be extremely valuable.

Lastly, United suggests that CEC specifically plan for and accommodate in the GFOs appropriate data collection to support the calculation of the load impact of the DEBA program (as well as DSGS) in the statewide load forecast. Among the many important aspects of integrating DSGS and DEBA in the load forecast, it would have important economic implications stemming from a potential reduction in LSEs' RA obligations.

14. Conclusion

Advanced Energy United would like to thank the CEC staff, and the leadership of Commissioners, in bringing the Solicitation Concept to stakeholders for our feedback. We hope that these comments allow for refinement of this important, ambitious, and innovative program, and we look forward to continued engagement and a successful program.

/s/ Brian Turner

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