

DOCKETED

Docket Number:	22-RENEW-01
Project Title:	Reliability Reserve Incentive Programs
TN #:	252089
Document Title:	Malta's Comments on CEC's DEBA Draft Program Guidelines
Description:	N/A
Filer:	System
Organization:	Malta, Inc.
Submitter Role:	Public
Submission Date:	8/31/2023 4:07:13 PM
Docketed Date:	8/31/2023

*Comment Received From: Jin Noh
Submitted On: 8/31/2023
Docket Number: 22-RENEW-01*

Malta's Comments on CEC's DEBA Draft Program Guidelines

Additional submitted attachment is included below.

August 31, 2023

Agency: California Energy Commission (CEC)

Docket No.: 22-RENEW-01

Subject: DEBA Program Guidelines

Email: doCKET@energy.ca.gov

Re: Malta's comments on CEC's DEBA Program Guidelines in response to August 15, 2023 Staff Workshop

Dear California Energy Commission (CEC) staff and leaders,

Malta, Inc. (Malta) appreciates the opportunity to submit these comments following the Staff Workshop on the Distributed Electricity Backup Assets (DEBA) Program Guidelines held on August 15, 2023. In these comments, Malta provides our feedback and recommendations on how to design and implement the DEBA Program to support the state's emergency on-call needs during extreme events and to advance the state's decarbonization goals.

Formed in August 2018, Malta is a privately held company that was spun out from X (Alphabet's "moonshot factory", formerly known as Google X) and that offers a long-duration pumped heat energy storage (PHES) system, providing energy storage capacity from 8 hours to 8 days. Malta's PHES system consists of commercially-available and proven technologies and equipment, with the innovation coming from the integration of these components. Malta's PHES technology combines and integrates various technologies commercially available today with a high degree of maturity from the power plant as well as the oil and gas industry and integrates them into a new high-temperature heat pump storage system as one of the few synchronous long-duration energy storage (LDES) technologies commercially available today.

I. INTRODUCTION & SUMMARY.

Malta appreciates this opportunity to comment on the Draft Program Guidelines published by the CEC and presented at the August 15, 2023 staff workshop. With a total budget of \$545 million, of which \$445 million is allocated for Distributed Resources, the DEBA Program represents an important program in spurring new resource build and deployment that can address electric grid reliability during extreme events while simultaneously advancing the state's long-term decarbonization goals. As the CEC staff presented, the supply outlook has improved on a year-on-year basis, but the grid remains vulnerable during widespread heat events. The CEC has also presented elsewhere on the summer "stack analysis" showing vulnerabilities to supply chain and interconnection related delays.

In the face of these risks and contingencies, Malta recommends that the DEBA Program establish a focus, or at minimum, a preference and/or additional scoring criteria toward new-build resources that have faced barriers to procurement or deployment that could be overcome through grant awards through this program. The funds available in this program present a rare opportunity

to spur resource development in categories of resource options may not otherwise be deployed *if not for* the support provided by DEBA and to catalyze innovative projects that could pay major dividends to meet longer-term reliability requirements and decarbonization goals. For example, the DEBA Program could advance LDES procurement as identified and required in the California Public Utilities Commission (CPUC) Integrated Resource Plan (IRP) but would benefit from state grant funding support to close the “missing money” gap associated with their longer-duration or multi-day storage capacity, along with other important attributes to system reliability (*e.g.*, synchronous inertia). In other words, doubling down on resource options that would still be procured and deployed in the absence of DEBA funds may not be the most impactful use of these limited funds. In addition to LDES, there may be other categories of resource options that fall in this camp, such as vehicle-to-grid resources, microgrids, or various forms of clean firm resources, among many others.

With this in mind, Malta offers the following comments and recommendations as the CEC staff develops and refines the Draft Program Guidelines:

- The proposed Grant Funding Opportunity (GFO) structure is well-suited to achieving the multi-factor criteria upon which submitted projects can be assessed to maximize benefits while minimizing costs.
- Any future program guidelines or solicitation documents should allow innovative integration and configurations of commercially-available technologies.
- Instead of setting the maximum hours available for dispatch during peak load from 4 p.m. to 10 p.m., the CEC should set a reasonable minimum set of hours for emergency on-call availability and dispatch and ascribe additional value/benefits to resources that can provide longer durations with additional points or weights for availability for any incremental hours beyond the minimum and by assessing cost-effectiveness from both a \$/MW and \$/MWh perspective.
- Consideration should be given to co-benefits beyond the ones listed, such as workforce development and synchronous inertia.
- Readiness criteria could favor projects that come online earlier but should not preclude projects with estimated commercial operation dates in the 2026-2028 timeframe from applying and be awarded funding under the DEBA Program.
- The DEBA payment structure should be revised to make the total project costs available fully upfront, subject to clawback or penalties for under-performance.
- A Bulk Grid Asset or a Distributed Resource that qualifies for RA should be ineligible for DEBA or return DEBA funds for the specific years in which they qualify for RA, if such qualification occurs at some point during the five-year DEBA program period

In addition to the program design and implementation recommendations above, Malta recommends that the CEC issue a draft solicitation for feedback. The general and relatively open-ended nature of the DEBA Draft Program Guidelines creates significant uncertainty on many specifics related to the criteria, process, and requirements of the program. Malta therefore recommends a GFO launch in Q1 2024 and GFO applications due in Q2 2024, with an opportunity to review the draft solicitation in the coming months.

II. GENERAL PROGRAM DESIGN.

Overall, Malta strongly supports the GFO structure of the DEBA Program, which is familiar to the CEC as administrators of the Electric Program Investment Charge (EPIC) Program and is well-suited to achieving the multi-factor criteria upon which submitted projects can be assessed to maximize benefits while minimizing costs. To Malta, it is unclear how the various proposed example criteria could be incorporated and assessed on an apples-to-apples basis under a uniform incentive structure for all technology and resource types, which vary in use cases (*e.g.*, capacity plus resiliency), capabilities (*e.g.*, duration, reliability/frequency of dispatch), project/deployment readiness, and other portfolio-related factors (*e.g.*, resource diversity, co-benefits). Developing such a structure could also entail a long process to administratively set the structure in the right and balanced way. Likewise, a traditional solicitation would be administratively burdensome and potentially de-emphasize some of the criteria highlighted by staff in the Draft Program Guidelines. Altogether, Malta believes that the GFO structure is the most nimble and flexible and allows the CEC to support projects that maximize benefits across multiple criteria.

III. ELIGIBILITY AND FUNDING ALLOCATION.

Malta supports the broad eligibility of technologies in the Draft Program Guidelines. Although the specific list of eligible technologies is detailed as “including but not limited to,” greater assurances could be provided by specifically calling out LDES technologies and broadening “battery storage” to “energy storage” in the list. Consistent with these general eligibility criteria, and in response to comments at the workshop that the program would only support commercially-available technologies, any future program guidelines or solicitation documents should also allow innovative *integration* and *configurations* of commercially-available technologies. In the case of Malta’s PHES, for example, all of the major equipment comes from commercially-available technologies (*e.g.*, heat exchangers, turbomachinery, hot/cold tanks), but the first-of-a-kind nature of the project comes from the integration of them into a PHES system. Just like how a microgrid may involve the integration of commercially available solar, battery storage, and fuel cell technologies into an innovative configuration with islanding capabilities, Malta’s PHES is integrating off-the-shelf technologies into a complete LDES system.

Moreover, Malta supports the CEC’s allocation of at least 25% of funds to projects in publicly-owned utility (POU) territories. Considering POU’s similarly face extreme events and the fact that DEBA funds come from taxpayers, this is an appropriate allocation to advance on-call resources in POU territories as well.

IV. EXAMPLE TECHNICAL SCORING CRITERIA.

Malta generally supports the example scoring criteria outlined in the Draft Program Guidelines and presented at the workshop. Specifics will need to be provided on the expected

weights and/or point-scoring methodology, as well as how the CEC will apply these criteria, but the proposed matrix represents a good starting point. In particular, Malta supports the inclusion of anticipated useful life of the resource, portfolio diversity, and the equity benefits as criteria in the matrix. There are, however, several modifications that we recommend.

First, for the capacity and availability category, the CEC should not set the maximum hours available for dispatch during peak load from 4 p.m. to 10 p.m., which would undercut the value of LDES or other resources that can provide more than 6 hours of duration. Especially as AB 205 and the Draft Program Guidelines require the consideration of resource longevity, there is long-term value in resources that can provide capacity beyond these six hours, with the growth of medium- and heavy-duty vehicle electrification and the risk of prolonged heat waves, among other factors. Rather, this criterion should set a reasonable minimum set of hours for emergency on-call availability and dispatch and ascribe additional value/benefits to resources that can provide longer durations. In turn, this valuation could be achieved by applying points or weights to the minimum amount of availability, and some additional points or weights to availability for any incremental hours beyond the minimum. Alternatively, or in combination, the CEC should assess cost-effectiveness under the cost category not only from a \$/MW perspective but also from a \$/MWh perspective.

Second, the co-benefits category should be broadened to incorporate any non-capacity-related reliability benefits and additional non-energy benefits. The current list highlights critical infrastructure resilience, which is important, but the CEC should use similar “including but not limited to” examples to signal and ensure the consideration of other co-benefits, such as local workforce retention/development and synchronous inertia that Malta’s PHES system can provide. Other projects and technologies may also provide co-benefits beyond the ones listed.

Third, for readiness, projects should be given points based on estimated project completion date and anticipated risks and barriers to deployment, consistent with the Draft Program Guidelines. However, at the workshop, CEC staff seemed to indicate that they would target projects with commercial operation dates in the 2024-2026 timeframe. Such aggressive timelines may be achievable by a small subset of projects, but given the fact that the funds only need to be encumbered (committed) in grant awards by June 30, 2026, the DEBA Program should also consider projects that can come online in the 2026-2028 timeframe – a more reasonable timeline (*i.e.*, considering interconnection delays) that also supports projects that may advance many of the other criteria in the Draft Program Guidelines. As Malta understands it, projects coming online in this later timeframe could still have their funds committed by June 30, 2026 since funds would only be awarded upon project completion date and thus be liquidated well before June 30, 2030 by coming online in the 2026-2028 timeframe. As such, the readiness criteria could favor projects that come online earlier but should not preclude post-2026 projects from applying and be awarded funding under the DEBA Program.

With all that said, given the importance of the specifics, Malta nonetheless requests that the CEC issue draft solicitation documentation prior to officially issuing the GFO in order to allow for stakeholder feedback through comments and/or via a pre-application workshop.

V. AWARD DISBURSEMENT.

The CEC proposes to make up to 50% of total project costs eligible for DEBA grant awards if the project is eligible for the federal investment tax credit (ITC), or up to 80% if not eligible for the ITC. Only 25% of the total award would be disbursed upon placed in-service date, with the remainder disbursed over a five-year period dependent on performance during emergency on-call periods. This performance-based payment of the award would therefore be split 15% annually at the conclusion of the summer season over the five-year period. Furthermore, the CEC proposed forfeiture of the performance-contingent payment if participating in the RA market during the summer months.

While understanding of this proposed structure, Malta recommends that the CEC revise the payment structure to make the total project costs available fully upfront. Such a structure would provide greater certainty to projects to get built and simplify the financeability of projects. To incentivize and ensure performance as an emergency on-call resource, the CEC could clawback DEBA awards for not meeting milestones or assess under-performance penalties, similar to how the ITC is subject to a recapture period. At minimum, the CEC should apply a level playing field between Distributed Resources and Bulk Grid Assets, where the latter has 50% of the total award disbursed upon reaching commercial operations and the former should be subject to same disbursement rules.

Additionally, the CEC should reconsider whether RA-qualifying resources should qualify under the DEBA Program. Given the RA market constraints, a Distributed Resource that could qualify in non-program months of DEBA (*e.g.*, have full capacity deliverability status) would likely be able to qualify for RA during the summer months when RA is most needed at the moment. While it makes sense for resources to use DEBA funds as a “bridge” to qualifying for RA and securing RA contracts (*e.g.*, awaiting upgrades to secure deliverability) or to address “gaps” in RA valuation (*e.g.*, lack of export capacity valuation for customer-sited batteries), it would only serve to further constrain the operations of an RA-qualifying resource in the summer to be restricted to an emergency on-call resource and remove a potential resource to be available for procurement in the bilateral RA market. Instead, a Bulk Grid Asset or a Distributed Resource that qualifies for RA should be ineligible for DEBA or return/forfeit DEBA funds for the specific years in which they qualify for RA, if such qualification occurs at some point during the five-year DEBA program period. Any forfeited or returned DEBA funds due to RA qualification should be recycled into the DEBA Program in order to support the deployment of additional projects.

VI. TIMELINES & IMPLEMENTATION.

The CEC presented target timelines and milestones for the launch of the DEBA Program, involving the approval of the Program Guidelines in October 2023, followed by the release of the GFO in October 2023, a pre-application workshop in November 2023, and the application deadline by December 2023.

Malta believes that this proposed timeline is very accelerated given the uncertainties of the specifics related to the GFO solicitation. While understanding of the need for speed to get new,

clean resources online as soon as possible, it may be prudent to ensure that the solicitation is structured in a way to support the deployment of the best-fit projects that align with multiple criteria. To allow for another round of feedback on the GFO solicitation protocols, agreements, and other relevant documents, Malta recommends a GFO launch in Q1 2024 and GFO applications due in Q2 2024, with an opportunity to review the draft solicitation in the coming months. Furthermore, Malta recommends that the CEC consider multiple rounds of GFOs in order to incorporate lessons learned from the first round and make adjustments as needed.

VII. RESPONSES TO WORKSHOP QUESTIONS.

In addition to our comments above, Malta offers the following responses to the questions posed in the workshop.

1. Are the proposed GFO payment structures effective and adequate to spur development of a project and ensure participation during an emergency event? Should alternative approaches be considered?

Yes, as explained above, Malta recommends a payment structure that makes payment available fully upfront, with the potential for clawbacks or penalty payments to the CEC if the funded resource underperforms or does not perform to expectations.

2. How much time does your organization need to respond to a GFO? What internal process and timetable is associated with applying for funds and entering agreements? Are there specific administrative elements that could be included to streamline the application process?

If EPIC GFOs serve as a reference point, Malta would need at least three months to respond to a GFO. Given the uncertainties of the specific GFO solicitation protocols, Malta recommends a GFO launch in Q1 2024 and GFO applications due in Q2 2024. This time would also support the coordination of key partners and preparation of shovel-ready sites for consideration by the CEC.

3. Does your potential project qualify for Federal tax incentives, such as the production tax credit or investment tax credit?

Yes, Malta's PHES qualifies for the federal ITC for standalone energy storage projects, along with various adders and bonus credits. More can be shared in response to the forthcoming solicitation.

VIII. CONCLUSION.

Malta thanks the CEC for the opportunity to offer these comments and responses regarding this draft program guidelines. Please do not hesitate to reach out if you have questions or wish to discuss any of the comments or responses above.

Sincerely,

A handwritten signature in black ink, appearing to read "Jin Noh". The signature is fluid and cursive.

Jin Noh
Director, Business Development & Policy
August 31, 2023