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Comments of Michael Day on DEBA Draft Solicitation Concept

I am filing these comments personally

Additional submitted attachment is included below.

Dear Commissioners, staff, and fellow participants in the energy policy space,

The following comments on and recommendations for the structure of the Distributed Energy Backup Assets (DEBA) program are solely my own, and do not necessarily reflect the opinions of any person or organization that I am currently or was previously affiliated with.

As an energy project development practitioner with decades of experience I can state that the hardest part of developing any large-scale renewable energy/Storage/microgrid project, particularly for Disadvantaged Communities (DACs), comes at the "Risk Capital" stage. The preliminary work on a substantial energy project is time consuming, but not tremendously costly. Site control must be obtained, but that can be done with options that are typically 10% or less of the final cost. Environmental surveys can be conducted, but they are again 10-15% of the cost of completing CEQA/NEPA. Initial single line drawings can be developed by engineers and used for discussions on interconnection capability with the local Distribution Service Provider, but this is again a small fraction of completing the interconnection process. Civil and Mechanical engineering can produce a very preliminary site layout, system design, and budgetary price, but it is not completed to the same level of rigor as a full cost estimation exercise. The list goes on from there.

What all these Preliminary Development tasks and functions have in common is that they are subjecting multiple different elements of a potential project to a form of critical review, which in turn reduces risk for an investor. Importantly, work done in Preliminary Development reduces risk, but it does not eliminate it. The final stage gate before construction begins is typically called "Final Investment Decision" (or F.I.D.). At F.I.D., risk needs to have been either completely eliminated or substantially mitigated. The phase between Preliminary Development and F.I.D., sometimes called Final Development, is where the detailed engineering occurs. It is also the point in the Project Development process where the greatest risk occurs.

From finding inappropriate soils during a geotechnical survey to discovering interconnection issues that are so expensive to mitigate that they crash the economics of a project, Final Development is when the big dollars are spent, and where the greatest risk is present. It is common for a majority of projects that start the Preliminary Development process to fail before they get to the Final Development stage, but this is acceptable because the cost per project is fairly low. Once a project completes Preliminary Development however, things change quickly. Engineering and outside consultant costs in Final Development are often 8-12 times higher than the amount expended during Preliminary Development. The risk at the end of Preliminary Development (therefore coming into Final Development) is as low as possible without moving into much larger expenditures, while the risk level required at F.I.D. must be as low as can be managed through engineering and risk mitigation strategies. For these reasons, expenditures during Final Development are often called "Risk Capital".

Risk Capital is not a substantial portion of the total cost of a major project, typically ranging from 1.5%-3.5% of total project cost. It is, however, the most *important* expenditure in the Development process. Prior to expenditure of Risk Capital, a project is theoretical, and is not eligible for most forms of finance; after Risk Capital has been spent and the project de-risked, funding and construction are effectively certain for cost-effective projects in the absence of unusual events. However, despite having a small expenditure relative to total project cost, access to Risk Capital is not easy, particularly for DACs.

Local government in DACs rarely have the spare resources available to fund even a portion of the Risk Capital needed to move a project forward, even if they could bring critically needed resilience, jobs, and property tax revenues. Individuals and institutions located in DACs rarely can fund Risk Capital

either, and individuals and institutions outside of DACs rarely choose to invest their money there, even for projects that appear to be both technically and economically viable at the end of Preliminary Development. It is principally due to this lack of access to Risk Capital, rather than lack of opportunities, that is restraining development of vital energy projects in California overall, and in DACs in particular.

Unfortunately, even generous programs can do little to change this situation. Most program payments are structured as beginning at Commercial Operation Date (COD), long after they are needed to cover the Risk Capital component. An alternative program design method is a proportional payment over the project's construction period. Both approaches are flawed in that they are both an example of free-ridership and an ineffective way to deploy limited capital to catalyze the actual construction of projects.

With regards to the free-ridership issue, for projects that are economically viable and have passed through the Risk Capital stage any payment only increases profitability; for projects that are theoretically viable but lacking access to Risk Capital, a proposed payment at COD is of little help. Payments at COD and beyond effect profit margin and economic viability, but that is not the problem that needs to be solved for in most cases: with California's extremely high energy and capacity payments, projects that make it "over the hump" can usually generate significant returns for investors without additional expenditure of limited public funds.

A program that pays later and pays a proportion of project costs is also cost ineffective in multiple ways. Buying down the cost of a $150M project by 10% would cost the same as funding the risk capital on five individual projects at $3M each but would have a far smaller impact. Also, program funds delivered years later must be discounted to account for Time Cost of Money/Net Present Value/Internal Rate of Return effects to an investor and must therefore be increased to overcome these effects.

An alternative that would dramatically help speed the development and deployment of projects in DACs would be to move the payment of at least a portion of the DEBA program funds to an up-front payment system to cover Risk Capital expenditures.

- Ideally this funding would be a revolving fund, where projects that are successful pay back the grant that they receive plus an additional amount to cover grants to projects that fail in the Risk Capital stage.
- This structure would "evergreen" the DEBA investments, and has multiple highly successful examples in the Commission's history, including the multi-decade long and phenomenally successful Energy Conservation Assistance Account (ECAA) program, and the smaller but still impactful SGIP advanced payment program in collaboration with the Representatives of California's Rural Communities (RCRC).
- Funds would be available at Microgrid Operating Agreement signing.
- The awardee would still need to comply with all Commission rules regarding establishing a budget and filing a report for reimbursement of actual costs spent, so the gatekeeping functions of the Commission would remain in place.
- Grants could be competitively awarded, with scoring rubrics in place to give the highest scores to projects
    - That had already completed substantial preliminary development tasks (site control, field biological surveys, cost estimation, etc.)
    - Were serving large numbers of people in DACs
    - With higher scores for areas that have suffered regular loss of power

In formulating the DEBA Program the Commission has the opportunity to direct at least some of the funds to be used as an ongoing catalyst for positive change in Disadvantaged Communities as opposed to the current design as a “one and done” for a few large projects. I would encourage the Commission to modify the DEBA program to use at least some of the funds for their highest and most effective use: funding as starter fluid, not fuel.

Respectfully,

Michael S. Day