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Comments re Community Energy Resilience Investment Program

Additional submitted attachment is included below.

Synergistic Solutions

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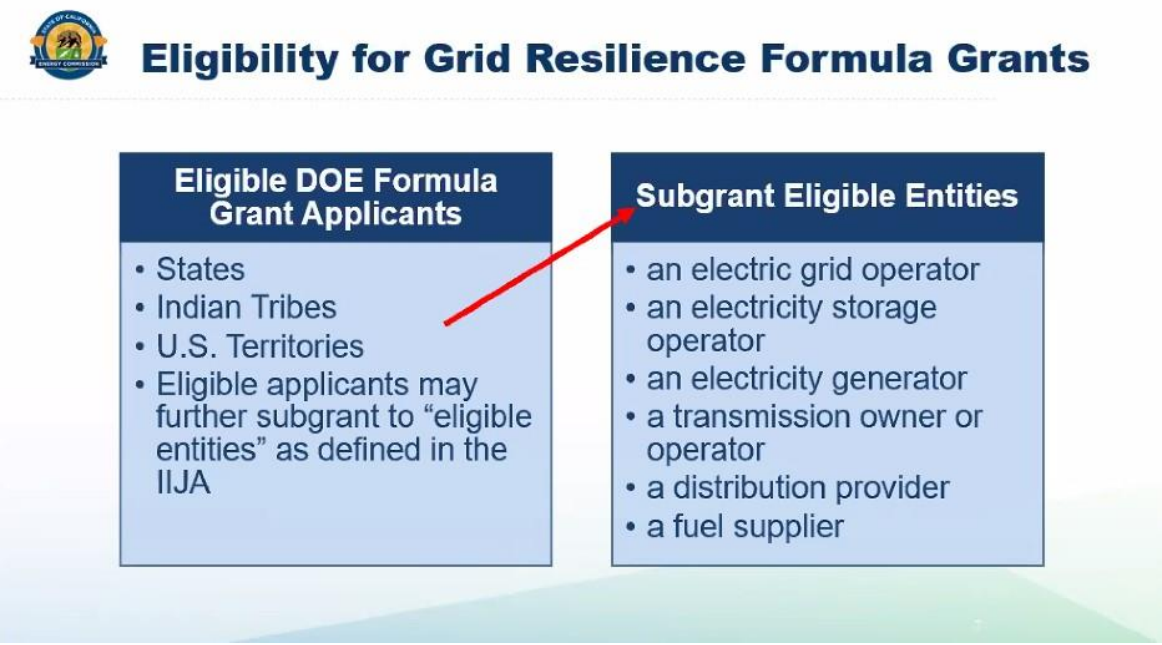
California Energy Commission

Re: Docket #: 22-ERDD-01 / Community Energy Resilience Investment Program

To Whom It May Concern:

Introduction: Examining CERI through its Constituent Parts. Thank you for the opportunity to comment concerning the Community Energy Resilience Investment (CERI) Program as presented at the August 11 Kickoff Webinar. Below I have organized my commentary based on CERI's three basic components: "Community," "Energy Resilience," and "Investment."

Community: Eligibility for Grid Resilience Formula Grants. My primary focus in this area concerns the image below concerning eligibility as taken from Slide 7 of the presentation given at the August 11 workshop:



Although the first word of the CERI acronym is "community," and there is a clear intent in the presentation to "Generate the greatest community benefit" and "Advance DOE's equity, environmental and energy justice priorities, including the Justice40 Initiative," a disconnect is evident in the IIJA listing of "Subgrant Eligible Entities" and the precise role that communities will play in partnership with those entities in building local energy resilience through proactive planning and civic engagement.

To bridge this gap, CERI program guidelines should provide a detailed description of each type of Subgrant Eligible Entity and the relative rights and responsibities of each community within the application process, with an overall program objective of delineating the parameters of a collaborative relationship between the community and subgrant eligible entity. At this early stage, developing uniform statewide application standards and forms for CERI grants is also extremely important, and should be a primary guideline objective. Finally, to the greatest extent possible, an effort should also be made to reference and integrate other relevant state funding programs into the application process, with resources for providing direct technical assistance to all grant participants at predetermined intervals.

Community: Effective Engagement is a Prerequisite. As effective local energy resilience requires siting and coordination among multiple sites within selected portions of a distribution system, it is essential that communities be actively engaged at the outset, particularly in disadvantaged communities that lack the human and financial resources to conduct in-house assessments. Integration of energy resilience into community planning will proactively identify areas most in need while increasing DER aggregation, resulting in economies of scale that lower development costs. This dynamic should be a central CERI program objective.

The importance of community agency in the CERI grant process cannot be overstated, and through a comprehensive data portal, local stakeholders should be encouraged to make inquiries, access data concerning Subgrant Eligible Entities and receive technical assistance in completing relevant portions of the CERI grant application. One central element of a CERI data portal should also cover local actions required for expedited local permitting needed in order to accelerate grant funding.

Community: Proactive Local Planning is a Fundamental Driver. Historically, scale in energy development is achieved through building large, remotely located facilities. In a high-DER future, scale can only be achieved by aggregating multiple sites through proactive local planning which identifies areas of high energy generation potential located adjacent to load centers, thereby minimizing distribution infrastructure upgrades. Effective energy resilience planning should also calculate an optimal amount of distributed storage capacity that can absorb planned excess generation for later use over a wide durational spectrum, with the understanding that the more storage capacity is shared, the higher utilization factor of that storage asset.

Equity Communities Stand to Benefit the Most from Community Energy Resilience Investment. Given the inordinate adverse environmental/economic/social impacts faced by low-income, “equity communities”, the value of DERs in alleviating these impacts increases proportionally. For example, many equity communities are located adjacent to commercial/industrial areas and transit corridors that impose a large volume of these adverse impacts. Through holistic CERI projects that incorporate commercial/industrial areas, this historically adverse relationship can be reversed through leveraging the high energy capacity of commercial/industrial sites for export into adjacent neighborhoods, along with the indirect benefits conferred to these neighborhoods from lower industrial emissions. Over the long term, aggregation at scale would deliver lower energy prices and high energy security in low-income households. From a local economic standpoint, DER development at local schools as a preferred community energy resilience project would offer the ability to create age-appropriate curricula for development of a skilled local workforce benefitting the community.

Energy Resilience: Qualities of Community Energy Resilience (Slide 12). Given the accelerating and worsening impacts of climate change on our energy grid, true energy resilience can only be conferred when the source of generation or storage capacity is located proximate to the point of end use. Co-location of DERs adjacent to load sources results in intrinsic energy sharing behind a point of common interconnection irrespective of grid operating conditions, thereby eliminating the prospect of disruption that is central to the resilience qualities listed on Slide 12, at least with respect to critical loads that prevent the worst consequences from power outages.

From this perspective, the primary value of DERs is measured through delivering higher resilience and lower cost by virtue of proximity to load, and state policy as implemented through the CERI program should focus primarily on how DERs can be best configured to serve these critical load centers within each community. *Proximity to load captures the highest resiliency value at the lowest cost of delivery and should be the guiding star in community energy resilience planning*. Traditional references such as behind or in front of the "meter" need to become more flexible, and a DSO/utility should be open to "moving the meter" as a reference point for optimally locating a grid access point that maximizes DER participation and utilization within a particular area.

Investment: Eligible activities under the Grid Resilience Formula Grant program (Slide 10). Of all the eligible activities listed on this slide, the only listed activity involving creation of local DER capacity that could unlock third-party investment from the private sector is "the use or construction of distributed energy resources for enhancing system adaptive capacity during disruptive events, including: microgrids and battery-storage subcomponents."

Other than "adaptive protection technologies" and "advanced modeling technologies," the remainder of the listed activities involve traditional grid infrastructure improvements that are more than adequately funded via utility general rate cases and a myriad of other state programs. To the extent possible, these grid hardening and maintenance measures should be funded through appropriate existing programs.

Investment: Proximity Between Generation and Load is a Key Resilience Value and Cost Metric. As previously stated, the distance between generation and end use of energy directly relates to its relative degree of resiliency, complexity, and cost. The longer the distance, the more transmission/distribution infrastructure is needed for delivery, which increases costs of delivery and opportunities for disruption. Conversely, DERs located at or near the point of consumption are extremely resilient and employ little to no infrastructure. The most obvious example of this dynamic are behind-the-meter (BTM) DERs, which exist primarily to serve on-site load and only require distribution infrastructre for energy exports. Absent the elimination or significant revision of current regulatory barriers such as Rule 218, developing robust BTM systems offering high resilience and relatively fixed costs will become the province of affluent site owners, leaving less creditworthy customers on the hook for traditional grid upgrades. As this "proximity metric" constitutes the primary distinction between DERs and centralized, utility-scale generation, uniform application of a location-based standard that equitably allocates costs and benefits among all resources is imperative to creating a level playing field for a high-DER future.

Investment: CERI Grants Should Encourage Third-Party Capital Investment via a Contractual Service Model. Financing the upfront capital cost of development could be achieved through issuance of local microbonds or through development of uniform service models that deliver a reasonable ROI while allowing the site owner an option to purchase the system once that ROI is realized. Commercializing these types of turnkey systems will require a high degree of regulatory oversight, with standard

contracts and bonding requirements to ensure vendor compliance and customer satisfaction. The CERI program should incorporate this objective into its grant application process and seek to develop the essential parameters for this emerging industry that can positively impact a number of sectors within a local economy.

Conclusion

An energy resilient community cannot be created through minor modification of traditional assumptions and past practices, and new metrics and methodologies must be developed "from the ground up" that equitably assess the cost and benefits of local energy capacity to the community. Integrating these new metrics and methods into a replicable investment model should be a central focus of the CERI grant application process.

Synergistic Solutions appreciates the opportunity to provide these comments regarding the CERI Program and looks forward to working collaboratively with the Commission and all interested parties to craft a policy framework necessary to advance public and private investment in energy resilience assets and strategies that address each community's core needs.

If you have any questions or concerns, please feel free to contact me by email or phone (818-384-4557). For those interested, I also encourage anyone reading these comments to review my more expansive initial comments dated June 17 in Docket 22-OII-01 concerning the CEC's Order Instituting Informational Proceeding (OIIP) on Distributed Energy Resources (DERs) in California's Energy Future.

Sincerely,

Robert Perry, Principal Consultant