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16-EPIC-01 Roadmap for Commercializing Microgrids in California Comments for Consideration

Additional submitted attachment is included below.



SOUTHERN CALIFORNIA
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November 17, 2017
California Energy Commission
Dockets Office, MS-4
Re: Docket No. 16-EPIC-01
1516 Ninth Street
Sacramento, CA 95814-5512

Re: *Draft Roadmap for Commercializing Microgrids in California Comments for Consideration*

To whom it may concern:

Southern California Edison (SCE) appreciates the opportunity to participate with the California Energy Commission (CEC), California Independent System Operator (Cal ISO) and California Public Utilities Commission (CPUC) on the development of the *Roadmap for Commercializing Microgrids in California* ("Roadmap"), and is pleased to provide comments on the draft of that document. SCE continues to support microgrid development, and the company's views are anticipated to evolve along with the technology and the market.

Microgrid Use Cases

At present, SCE has identified three specific use cases for microgrids that could represent future replicable project deployments. The following microgrid use cases should be defined in the California microgrid roadmap and utilized as potential pathways forward to develop additional actions and areas of attention for future deployments as they pertain to each use case:

1. **Individual Customer Microgrids:** microgrids installed behind a customer meter for the benefit of an individual customer, or a particular customer facility (including campus style facilities such as those found at universities or military bases). The purpose could be to provide enhanced customer reliability or resiliency, but would be entirely at the customer's discretion, and would be financed and paid for by the customer deploying the microgrid. The microgrid could be installed and operated by the individual customer or the utility.
2. **Front of The Meter Microgrids:** a microgrid deployed in front of customer meters, intended to benefit the grid and its customers. These microgrids would utilize utility distribution infrastructure, could include a mix of in front of the meter and behind the meter Distributed Energy Resources (DERs), and may interface with utility control systems. This type of microgrid should also be deployed by the utility for a variety of different grid values. Additional work is needed to understand the technology and economics of these types of microgrids.

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3. **Critical Infrastructure Microgrids:** a subset of use case 2, critical infrastructure microgrids are deployed in front of customer meters, intended to ensure the resiliency of specific customers that provide critical services within a community or area. These microgrids would utilize utility distribution infrastructure, could include a mix of in front of the meter and behind the meter DERs, and may interface with utility control systems. SCE is not aware of an agreed upon methodology for calculating the benefits of enhanced resiliency of facilities that provide public safety, health, and community security. Moreover, there is currently no regulatory structure for apportioning the costs of such a microgrid across rate-payers. SCE believes there is value in identifying these opportunities within the Roadmap.

Microgrid Value

As described above and in the Roadmap, there are multiple potential applications for microgrids and the value to both customers and the electric grid from these applications requires further analysis and documentation. Defining, quantifying, and documenting these values is critical to the future success of microgrid deployments. The microgrid benefits identified in the draft Roadmap should be distinctly defined as those separate from an individual DER, so a comparison can be made between the two. The Roadmap should also draw a clear distinction between the unique benefits of a microgrid (e.g. islandability, optimization, interface, communications, etc.) and the benefits of DERs in general. Defining microgrid value streams will lead to better, and more informed project and solution deployments.

Again, SCE thanks you for this opportunity to participate on the development of the *Roadmap for Commercializing Microgrids in California*. We hope the use cases included above provide a platform to build replicable business applications for the diverse needs of microgrids.

In conclusion, SCE requests that the following items be included in the Roadmap:

- a) identification of the need to develop a valuation methodology for critical infrastructure microgrids;
- b) inclusion of a plan to explore potential cost appropriation and regulatory framework challenges facing critical infrastructure microgrids; and
- c) clarification of the unique value microgrids provide, in comparison to other DERs in general.

If you have any questions, please feel free to contact me at (626) 302-9645.

Sincerely,



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