

19 April 2019

Response to Commission on Catastrophic Wildfire Cost and Recovery Request for Comment

VIA ELECTRONIC MAIL

Members of the California Wildfire Commission,

Thank you for the opportunity to provide input in response to a request for comment from the public. We address specifically question “5. Miscellaneous, a. Do you have other recommendations for ways to reduce wildfire damage and costs that the Commission should consider?” We will also comment more broadly on what we consider to be omissions in the “Wildfires and Climate Change: California’s Energy Future” (“Strike Force”) report,¹ based on our own experience and expertise.

Over the past several months, we have been encouraged by progress that has been made in California with respect to analyzing the critical role that the state’s electric infrastructure will play in mitigating catastrophic wildfire threats moving forward. We are particularly heartened that public comment is being considered as a component of this plan.

It is our view, however, that the primary outputs of this process that have been made publicly available to date -- including the Governor’s Strike Force report – largely fail to consider the important role that Distributed Energy Resources (“DERs”) can play in helping the state mitigate wildfire risk moving forward.

While we support many of the incremental measures that have been proposed by the utilities and the Governor’s Strike Force, there is a consensus amongst stakeholders that the frequency and duration of utility Public Safety Power Shutoffs (“PSPS”) will need to be drastically increased in coming years. While no specific projections regarding the frequency and duration of PSPS events have been released publically to date, based on the Public Safety Power Shutoff Policies and Procedures released by PG&E in February 2019, ratepayers in certain areas of the State could experience over a dozen PSPS outages annually with average outage duration of 2- 5 days. Moreover, concerns surrounding wildfire related liabilities could result in Investor Owned Utilities exceeding these projections. As Frank Wolak, Director of the Program on Energy and Sustainable Development at Stanford University told Utility Dive, “If I was running a utility, I would de-energize whenever there is any risk whatsoever of liability for wildfire damages.”² This does not seem tenable for utility customers as wildfires increasingly pose a threat to electric service.

As such, while California must continue working to mitigate risks surrounding electric grid related ignition events, it is equally important for the State to assist communities in preparing for the inevitability of extended electric outages. In this respect, modern DER technologies can play a critical role in improving community resiliency. While DER technologies are briefly discussed in the Governor’s “Strike Force” report, they are not addressed in the context of improving community resiliency in the face of extended PSPS events. A robust discussion about DER technologies should most certainly be required with respect to the Governor’s stated goal of “making communities more resilient.”³ DER technologies have proven to be responsive,³ agile, and, because of their distributed nature, more easily isolated from the main grid.

While many different types of DER technologies warrant evaluation as part of the comprehensive strategy required, clean energy microgrids will play an especially important role in ensuring that mission critical infrastructure can continue to operate in the face of PSPS events. Clean energy microgrids are an established technology. Based on a November 2017 microgrid report by Wood Mackenzie, there are 1,623 microgrids currently operating in the United States, with a total generating capacity of 3,197 MW. The report addressed California specifically, stating “California is expected to have increased deployments in future years given the August 2017 announcement of \$44.7 million in funds for microgrids, along with aggressive renewable and energy storage targets, a successful state incentive program (EPIC), and a number of large military bases and university campuses.”⁴

¹ Strike Force report link here: <https://www.gov.ca.gov/wp-content/uploads/2019/04/Wildfires-and-Climate-Change-California’s-Energy-Future.pdf>

² From Utility Dive: <https://www.utilitydive.com/news/the-hard-choice-californias-wildfires-have-forced-on-its-utilities-and-a/548614/>

³ Strike Force Report, page 2.

⁴ See report here: https://www.woodmac.com/our-expertise/focus/Power--Renewables/microgrid-forecast-h12019/?utm_source=gtmarticle&utm_medium=web&utm_campaign=wmpr_microgridh12019 and summary: <https://www.greentechmedia.com/articles/read/microgrid-fossil-generation-continued-to-dominate#gs.6mr3uj>

While widespread deployment of microgrids has yet to come to fruition in California--based at least in part on concerns regarding amount of time to develop, cost, scalability, and integration within the utility distributed infrastructure--we believe those issues are all solvable. In fact, we have found that, utilizing commercially available technology, it is absolutely feasible to design microgrid solutions that:

- Can be installed in 10 -12 months, allowing systems that are planned now to be could be fully commissioned ahead of the peak 2020 fire season;
- Are affordable for many C&I ratepayers with attractive long-term financing options available;
- Alleviate most need for custom design and engineering, rendering scalability feasible; and,
- Are installed behind the customer meter, enabling island-mode operations without utility distribution system reliance.

We are confident that designing this type of microgrid system is possible because we are one of a number of companies that has designed and deployed such a solution. Because our system is built using common and standard modules, we can design, construct, and commission microgrids in less than nine months. Our company alone could deploy 25 megawatts of behind-the-meter systems ahead of the 2020 California wildfire season. With a microgrid, the host facility is able to operate up to 100% of peak electric demand for an extended duration. Unlike diesel generators, there is no on-site fuel storage requirement and performance is not dependent on fuel-supply logistics. We have partnered with major financial services companies to secure \$100M in funding which will enable us to offer the first wave of deployments via fully funded Energy Service Performance Contracts, enabling our customers to install microgrids with no up-front capital investment required. In addition to these customers having access to power during outages, when the grid is operational our customers can provide demand response and ancillary services that benefit the utility and overall grid while providing a revenue stream for the customer.

The crucial piece of this puzzle, however, will be the Commission's willingness to allow DERs and microgrids to offer productive solutions to this ongoing crisis. With strategic siting of these systems, we could provide uninterrupted power to critical facilities like fire stations and hospitals as well as to community-based services like grocery stores or gas stations. Our company wants to be part of California's wildfire mitigation solution and we believe that these cost-effective and resilient systems can and should be part of any overarching plan to protect the citizens of California from pervasive outages due to wildfire.

On behalf of our team at Scale Microgrid Solutions, we stand ready to assist the State of California in deploying DER technologies as part of the comprehensive wildfire mitigation strategy required. Thank you again for the opportunity to provide input; please do not hesitate to contact us should you have any questions about these comments.

Respectfully,



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