

**DOCKETED**

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Submitted On: 7/30/2020  
Docket Number: 20-IEPR-04*

## **Post-Workshop Comments of Peninsula Clean Energy Authority**

*Additional submitted attachment is included below.*



San Mateo County | Atherton | Belmont | Brisbane | Burlingame | Colma | Daly City | East Palo Alto | Foster City  
Half Moon Bay | Hillsborough | Millbrae | Menlo Park | Pacifica | Portola Valley | Redwood City | San Bruno | San  
Carlos San Mateo | South San Francisco | Woodside

July 30, 2020

Commissioner Hochschild  
California Energy Commission  
1516 9<sup>th</sup> St  
Sacramento, CA 95814

Re: Docket 20-IEPR-04 – Post-Workshop Comments of Peninsula Clean Energy Authority

Dear Commissioner Hochschild:

Pursuant to the California Energy Commission (“CEC”) Notice of IEPR Commissioner Workshop on assessing the Future Role of Microgrids in California issued June 24, 2020 in Docket No. 20-IEPR-04, Peninsula Clean Energy Authority (“PCE”)<sup>1</sup> submits the following post-workshop comments. PCE welcomes the inclusion of microgrids to the 2020 Integrated Energy Plan Report and appreciates the time and attention that the CEC has dedicated during the workshop to assessing the future role for microgrids in California. The CEC workshop included presentations from designers, owners, and operators of microgrid projects that have reached a meaningful phase in development and shed light on best practices and suggested solutions to overcome the barriers to deployment. PCE especially appreciates the particular focus on the pairing of microgrid resiliency and renewable integration benefits. This is an increasingly timely conversation as the California Public Utility Commission (“CPUC”) has begun to address similar issues around microgrids in Docket R.19-09-009 (“Microgrid Proceeding”). It is clear from the workshop that, while there are many microgrids throughout the state, there is still a need for a more robust market in order for these technologies to enter the energy mainstream.

As a local public agency governed by the communities we serve, PCE is deeply committed to supporting efforts to increase resiliency within our communities. We recognize the need for creative solutions to ensure utility services are maintained in spite of the threat from natural disasters and the safety measures designed to counteract them. PCE shares the resiliency concerns of many of the participants in this proceeding as San Mateo County faces significant threats from natural disasters like wildfires and earthquakes. The attached Figure 1 is

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<sup>1</sup> PCE is San Mateo County’s official electricity provider. A joint powers authority formed in 2016, its mission is to reduce greenhouse gas emissions by expanding access to sustainable and affordable energy solutions. PCE provides all electric customers in San Mateo County with cleaner electricity at lower rates than those charged by the local incumbent utility and implements robust energy programs that reduce greenhouse gas emissions to contribute to San Mateo County reaching the state’s goal to be 100% greenhouse gas-free by 2045. PCE serves approximately 750 MW peak load, 290,000 accounts, and saves customers an estimated \$18 million a year.

taken from the California Office of Emergency Services (“Cal OES”) MyHazards tool.<sup>2</sup> Cal OES identifies a large portion of the county as vulnerable to earthquake faults or liquefaction that can pose a substantial risk to natural gas transmission and distribution infrastructure. It also designates a large portion of the county’s geography as significantly threatened by wildfires.

The threat from wildfires also means that our customers are subject to PSPS events during the wildfire season. PCE customers were impacted by three PPS events in October of 2019. As shown in the attached Figure 2, the most wide-spread event in San Mateo County disrupted service for roughly 57,000 accounts, roughly 19% of PCE’s customers. And while the two other PPS events did not reach the same scale in terms of impact on PCE customers, as many as 15,000 accounts experienced multiple service disruptions and some disruptions lasted as long as 24 to 48 hours.

As recognized in a recent concept paper issued by staff in Track 2 of the CPUC Microgrid Proceeding, in addition to the direct value of providing electrical power for the load within the microgrid boundary, microgrid resiliency projects also provide indirect values to the host communities. Continuity of electric service reduces the overall level of disruption experienced by the community and allows for community members to meet basic needs like food, water, and medical attention. And assisting the community to meet those needs provides opportunity for more people and resources to be available to contribute to the disruption recovery efforts.<sup>3</sup> Thus the advancement of the maturation of the microgrids market should be seen as a key means of empowering communities to address disaster preparedness.

Because community resilience provides a range of benefits, PCE has developed programs and policies to support community resilience. On October 21, 2019, PCE’s Board approved the development of a plan to invest up to \$10 million over three years towards programs that address the problems created by PPS events and natural disasters that can impact PCE’s customers access to electricity.<sup>4</sup> With the adoption of our Resiliency Strategy in January 2020, PCE has launched three key resiliency programs.<sup>5</sup> First, PCE is working to deploy backup generation to medically fragile residential customers.<sup>6</sup> Second, PCE is developing community-scale emergency response centers outfitted with energy resiliency including significant storage components. Third, PCE is also providing storage-based resiliency solutions to critical public facilities (“CPF”), such as police and fire stations, hospitals and other healthcare facilities, communications facilities that support emergency first responders, transportation infrastructure, and wastewater, sewage, and water pumping facilities.<sup>7</sup> As part

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<sup>2</sup> See <https://myhazards.caloes.ca.gov/>

<sup>3</sup> See Microgrids and Resiliency Staff Concept Paper, pp. 36-37 released July 23,2020, Docket R. 19-09-009. Available at: <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M344/K038/344038386.PDF>

<sup>4</sup> See <https://www.peninsulacleanenergy.com/wp-content/uploads/2019/10/Peninsula-Clean-Energy-Commits-10-Million-FINAL.pdf>

<sup>5</sup> See [https://www.peninsulacleanenergy.com/wp-content/uploads/2020/02/Resiliency-Strategy\\_January.pdf](https://www.peninsulacleanenergy.com/wp-content/uploads/2020/02/Resiliency-Strategy_January.pdf)

<sup>6</sup> See <https://www.peninsulacleanenergy.com/free-or-low-cost-backup-batteries-for-medical-devices/>

<sup>7</sup> In collaboration with East Bay Community Energy, we have launched a Public Resiliency RFI for solar plus storage projects for critical public facilities. The RFI identified 500 potential sites across Alameda and San Mateo County as

of these efforts, PCE's board approved on June 25, 2020 an agreement for \$5.5 million to deploy up to 5MW of behind-the-meter storage within our territory for both resilience and resource adequacy benefits.

Many of the IEPR workshop participants highlighted the potential benefits that could be realized if microgrids were deployed throughout California. They pointed out that microgrids present an opportunity to align resiliency efforts with procurement and environmental goals designed to increase renewable generation and limit emissions and criteria pollutants. Participants also reasoned that existing load serving entity procurement efforts will not generate the level of deployment necessary to realize the full potential of microgrids. PCE agrees with those assessments and believes that we must reach a point where decision-makers at all levels can be presented with a clear business case that demonstrates the value microgrids can provide. This outcome would allow a bottom-up approach where municipal bodies will be encouraged to pursue microgrid projects, especially in lieu of traditional diesel backup power. We believe achieving this goal requires thoughtful policy that will activate the market and encourage more activity from 3<sup>rd</sup> party providers that can provide a wider range of solutions. To get to this successful end state, barriers to microgrids must be removed.

**Cost:** At the workshop, many presenters discussed the cost of microgrids as a current barrier. Simply put, the up-front costs of a microgrid when compared to traditional backup power solutions like diesel generators can make a microgrid appear to be overly expensive. Demonstration projects like Stone Edge Farm prove that clean microgrids can be built at scale. Nearly 100% of its energy is offset by on-site solar. But even with significant private investment, the presenters from Stone Edge Farms recognized that a diverse ecosystem of vendors is a key to success as it creates competition within the space and drives down the cost of microgrid solutions. One can easily draw the conclusion that parties with interests in smaller systems or who have limited access to capital would be even more dependent upon a market that can present them with a large variety of potential vendors and project partners to ensure a return on their investment. A stronger business case would be a motivating factor for all decision-makers considering investing in microgrids, particularly those representing county and municipal entities as they must choose between a range of budget priorities and their decisions are subject to public scrutiny.

**Interconnection:** Interconnection uncertainties – both cost and timing of approvals – were also identified as significant barriers to deployment of microgrids. Many commenters and presenters noted that costs of interconnection are often uncertain and review delays can stymie project development to the point that a project loses support or becomes financially unviable. SB 1339 (Stern) calls for the CPUC to develop guidelines that determine what impact studies are required for microgrids to connect to the electrical grid. One aspect of this discussion is that it should provide project participants with additional certainty as to the full

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potential project hosts for a total of 11 MW of aggregated PV and 24.3 MWh of aggregated battery storage. Individual projects were sized to serve critical loads for an outage lasting 5 days. See <https://www.peninsulacleanenergy.com/previousrfo/rfi-public-facility-resilience/>

costs for interconnection of their project and a more dependable timeline for commissioning. The CPUC's Track 1 Decision D.20-06-017 implemented short-term actions to begin addressing this issue by prioritizing and streamlining interconnection applications to deliver resiliency services at key sites and locations. The CPUC Ruling dated July 23, 2020 requesting comment on the Track 2 staff proposal and concept paper called for additional input from stakeholders on specific interconnection issues that should be addressed in the rulemaking.

Identifying a clear list of interconnection studies appropriate for microgrids and streamlining interconnection applications are both positive steps towards overcoming the barrier posed by the current process. This issue touches on the larger concern shared by many around the costs faced by customers who want to interconnect equipment to the grid that do not have well defined interconnection standards, timelines and fees. As PCE recently noted in comments filed in CPUC Docket R.18-12-006, one of the most crucial issues to address to achieve full effectiveness of transportation electrification measures is to establish a more efficient, transparent, cost-effective, and predictable connection process for electric vehicle supply equipment and utility upgrades.<sup>8</sup> For example, PG&E's EV-related distribution system upgrade costs are nearly five times that of other large IOUs.<sup>9</sup> Any cost recovery sought by the IOUs for providing interconnection services should be supported by robust data and a streamlined process for review.

**Exit Fees and Standby Charges:** Many of the workshop participants identified Departing Load Charges and Standby Charges as another significant barrier to microgrid deployment. The CPUC staff Concept Paper addresses this barrier and presents some possible solutions that could grant exemptions for certain qualifying projects while limiting the potential for cost shifting. PCE looks forward to engaging in those conversations with other interested stakeholders in Track 2.

Finally, many workshop participants reiterated that the rates and tariffs developed for microgrids must create a level playing field that encourages all technologies to participate. Currently, traditional diesel generation accounts for the majority of power backup. SB 1339 (Stern) specifically directs the CPUC to not allow for specific microgrid tariff and rates to compensate a customer for the use of diesel and natural gas generation save for certain circumstances. PCE, with its focus on clean energy procurement designed to meet resiliency needs, agrees with this priority and looks forward to engaging with stakeholders to encourage broad participation in the market.

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<sup>8</sup> See Opening Comments of Peninsula Clean Energy Authority on Sections 7 and 8 of the Draft Transportation Electrification Framework, pp. 12-16 filed on July 14, 2020, in Docket R.18-12-006. Available at: <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M343/K324/343324749.PDF>

<sup>9</sup> See R.13-11-007 Compliance Filing of PG&E, SCE and SDG&E pursuant to Ordering Paragraph 2 of D.16-06-011 (April 2, 2019) at 8, Table IOU-2 (summarizing PEV-related distribution system upgrade costs for July 2011 through December 2018 and conveying that PG&E's "Average Cost for Distribution System Upgrade" was \$19,262, while this cost for other large IOUs is approximately \$4,000). Available at: <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M334/K604/334604419.PDF>

PCE thanks the CEC for hosting the workshop for participants to share their experiences and exchange ideas to encourage the full commercialization of microgrids and appreciates the opportunity to submit comments.

Sincerely,

Joseph F. Wiedman  
Director of Regulatory and Legislative Affairs  
Peninsula Clean Energy Authority

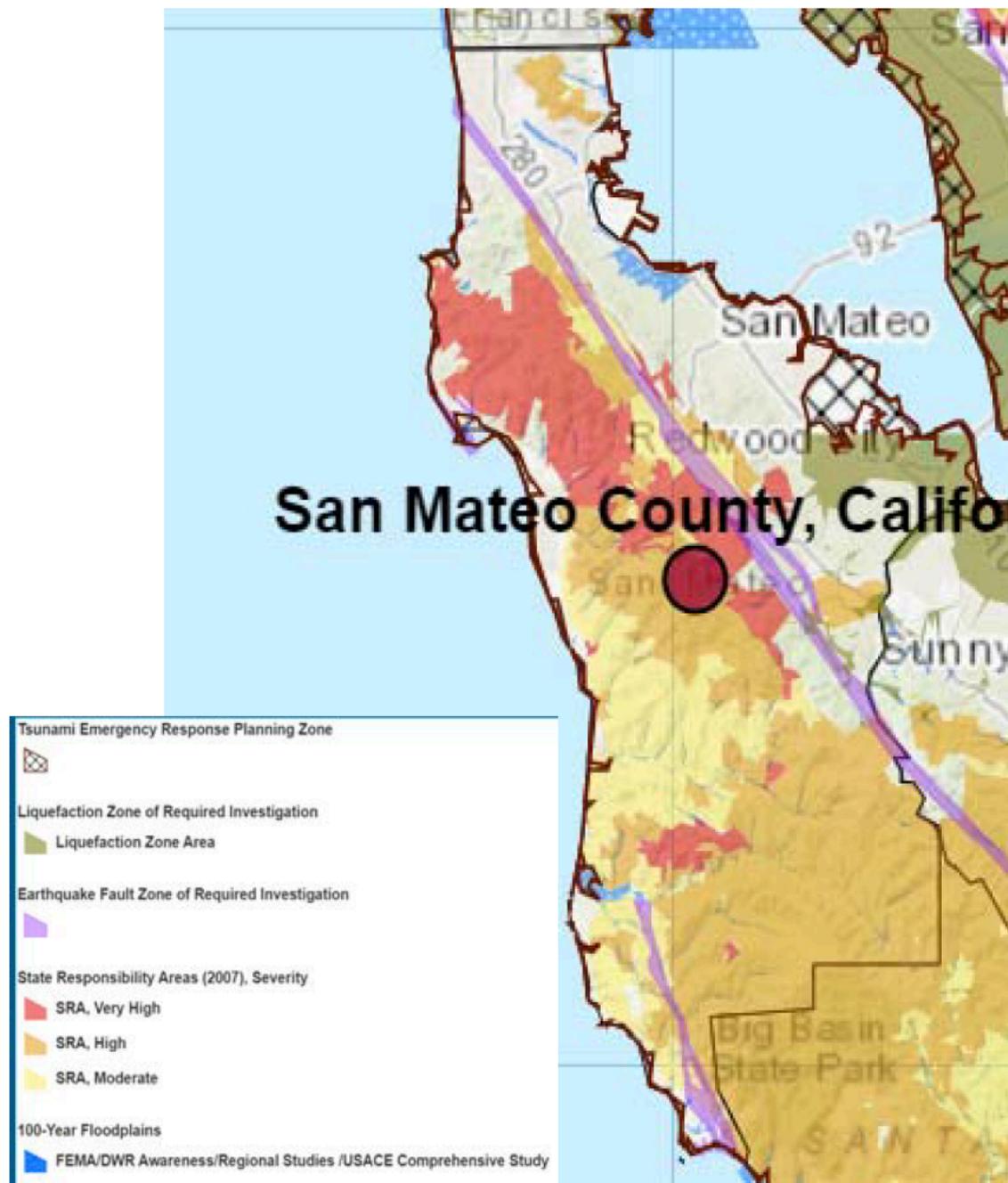


Figure 1 Cal OES Map of Hazards in San Mateo County

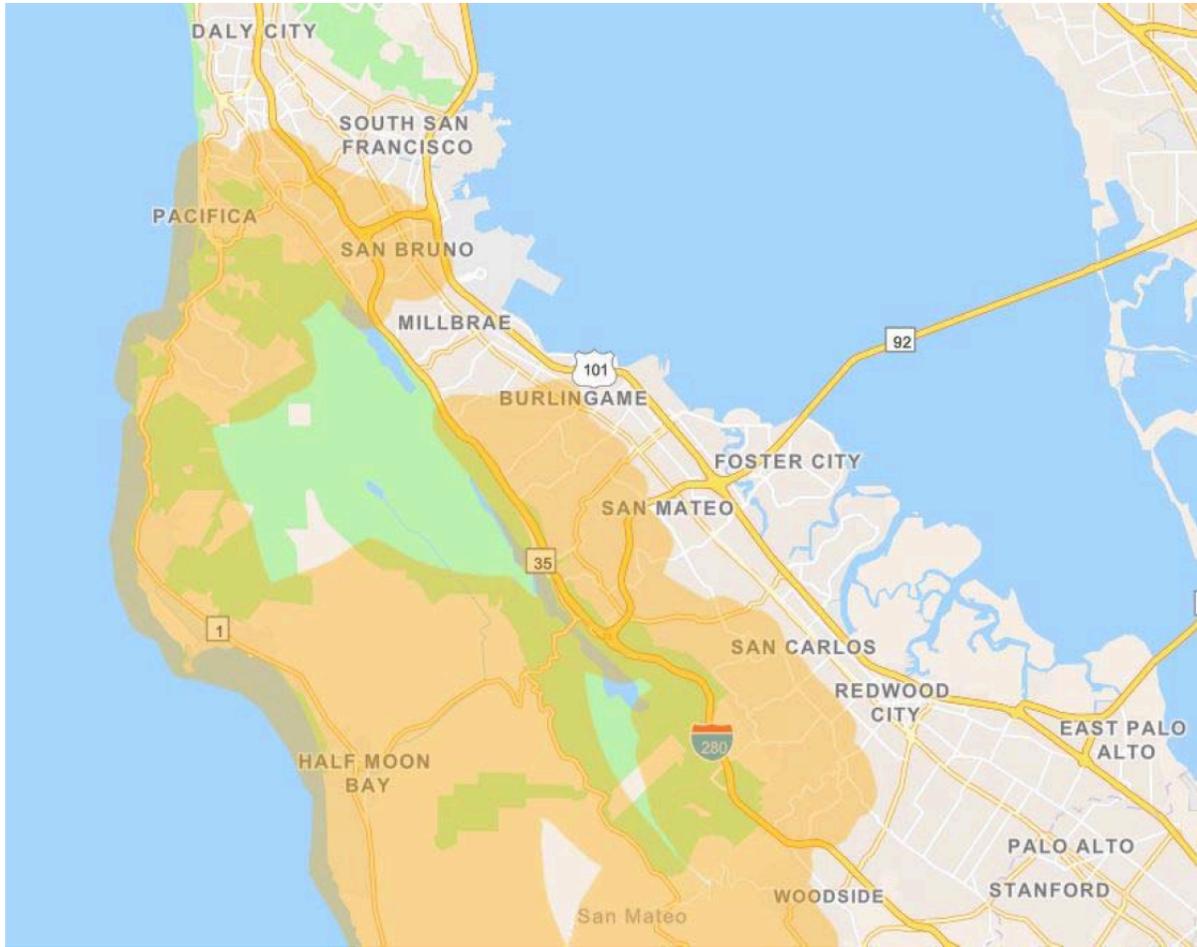


Figure 2 PG&E Map of many PCE communities impacted by the October 26, 2019 PSPS event. Orange shading represents areas that experienced a power outage.