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Joint IOU Comments - 2020 IEPR Update Volume II

Additional submitted attachment is included below.

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California Energy Commission
Docket Office, MS-4
Re: Docket No. 20-IEPR-01
1516 Ninth Street
Sacramento, CA 95814-5512
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Re: Southern California Edison Company, San Diego Gas & Electric Company and Pacific Gas and Electric Company Comments on the California Energy Commission Docket No. 20-IEPR-01: Draft 2020 Integrated Energy Policy Report (IEPR) Update, Volume II

Dear Commissioners:

On March 8, 2021, the California Energy Commission (CEC) released the *Draft 2020 Integrated Energy Policy Report Update, Volume II (Draft 2020 IEPR Update)*, which examines the role of microgrids in California's clean and resilient energy future, based largely upon lessons learned from the CEC's research investments over the past decade. Southern California Edison (SCE), San Diego Gas & Electric (SDG&E), and Pacific Gas and Electric Company (collectively, the "Joint Utilities") appreciate the opportunity to submit comments on the draft report.

In general, the Joint Utilities support the findings and recommendations set forth in the *Draft 2020 IEPR Update*. The draft report recognizes that current microgrid technologies cannot address all the challenges that the electric grid faces due to their relatively high costs compared to alternate solutions and current dependence on fossil fuel generation for long duration outages. Given these challenges, microgrids should be deployed strategically where resiliency needs are greatest and other resiliency measures (e.g., backup generation, grid sectionalization and redundancy via back-ties to other circuits, etc.) are not viable or cost-effective. The Joint Utilities offer additional insight for consideration as the CEC finalizes the report.

I. The Joint Utilities support the CEC's recommended strategic applications for microgrids.

Based on lessons learned after a decade of investing in microgrid research, the CEC sets forth a list of strategic applications where microgrids can best serve California over the next decade.¹ These applications are focused on communities with the greatest resiliency challenges (i.e., most prone to grid outages) or on facilities with the greatest resiliency needs, such as

¹ *Draft 2020 IEPR Update*, p. 17.

military installations, critical state infrastructure, and essential community services. The Joint Utilities support this list of strategic applications for microgrids.

As the *Draft 2020 IEPR Update* lays out, “microgrids are not appropriate or cost-effective to address every problem.”² Microgrids may need to use fossil fuel generation for outages longer than four to six hours because supporting islanded operations for long duration outages using only clean generation and storage currently can be cost and/or space prohibitive. There may be specific instances in which microgrids are the least-cost best-fit solution, i.e., a microgrid is the optimal solution to provide improved resiliency when costs, benefits (including potential microgrid market revenues) and feasibility constraints are considered. The Joint Utilities support the CEC’s continued investment in research to bring down the cost of clean energy microgrids. This includes the research priorities listed³ in the *Draft 2020 IEPR Update* such as longer duration energy storage and improved microgrid controllers. In the meantime, microgrids are most appropriate for strategic applications with specific resiliency needs and challenges.

While distributed energy resources (DERs) can provide several benefits to the host customer, the surrounding community, and the grid, the incremental benefits of using the DERs to form a microgrid are increased reliability and resiliency. This is precisely why the strategic applications listed in the *Draft 2020 IEPR Update* are focused on circumstances where increased resiliency can provide the most value. For example, in its first project under its new Solar + Storage Customer Resiliency Pilot, SCE retrofitted the San Jacinto High School with microgrid controls so they could use their existing solar and storage assets during an extended outage and provide a resiliency site for the local community. As another example, as noted in SDG&E’s Wildfire Mitigation Plan (WMP), SDG&E is building microgrids using clean generation and storage to reduce the impacts associated with Public Safety Power Shutoff (PSPS) events to its critical facilities and vulnerable communities. Similarly, PG&E in partnership with the Blue Lake Rancheria Tribe and Schatz Energy Research Center (Humboldt State University) developed the Blue Lake Rancheria microgrid, which integrates a solar array, battery storage, and a backup generator to allow the Rancheria campus to operate in tandem with or islanded from PG&E’s grid. Given the high earthquake risk faced by Humboldt county and if the main grid loses power, the microgrid enables the Rancheria to provide continuous power to an onsite American Red Cross emergency shelter during emergency events. Even in these instances, the cost of a microgrid must be weighed against other resiliency measures that can bring the same benefit (e.g., individual customer backup generation, grid sectionalization and redundancy, etc.).

In addition, the resiliency value of a microgrid can change over time. For example, as the *Draft 2020 IEPR Update* points out, PSPS events are expected to decline in the future due to significant investments by utilities in wildfire mitigation, including hardening the grid, bolstering situational awareness capabilities, and enhancing operational practices.⁴ Accordingly, as the Joint Utilities explore opportunities for microgrids to address PSPS impacts, a key focus is to target areas where the frequency and severity of high wind conditions may still present PSPS risk even after grid hardening.

² *Draft 2020 IEPR Update*, p. 2.

³ *Draft 2020 IEPR Update*, p. 40.

⁴ *Draft 2020 IEPR Update*, pp. 2-3.

The California Public Utilities Commission (CPUC) and stakeholders will be exploring the value of resiliency in Track 4 of the ongoing Microgrids and Resiliency Rulemaking (R.19-09-009). The Joint Utilities encourage the CEC to participate so the CPUC and stakeholders can benefit from the expertise the CEC has gained by supporting microgrid research for over a decade.

II. The CEC appropriately recognizes the role of departing load and standby charges in ensuring that all customers pay their fair share of costs.

The *Draft 2020 IEPR Update* discusses statements made by participants at the July 2020 IEPR Workshops that departing load charges and standby charges are significant barriers to microgrid deployment.⁵ As the draft report points out, these charges play a fundamental role in ensuring that all customers pay their fair share of costs. In addition, when discussing equity considerations for microgrids, the *Draft 2020 IEPR Update* states, “[i]n supporting appropriate microgrid deployment, policies that erode the responsibility of all ratepayers to share in the cost of providing universal access to electric power for all must be avoided.”⁶ The Joint Utilities wholeheartedly agree.

The Joint Utilities offer one point of clarification for the CEC’s discussion of departing load charges and standby charges. The *Draft 2020 IEPR Update* states that, “[d]eparting load charges and standby charges represent the cost to the utility and their customers to provide these services before the microgrid was installed.”⁷ Departing load charges are designed to recover the costs that are stranded by a customer’s decision to reduce or replace the purchase of electricity from the investor owned utilities (IOUs) and to collect charges designed by the CPUC as nonbypassable. Standby charges, on the other hand, are designed to cover the cost of distribution and generation capacity necessary to ensure that the IOUs can serve a customer’s full load when the customer’s generator is not operating as intended. Both departing load charges and standby charges are necessary to avoid cost-shifting with greater deployment of microgrids, as is required by SB 1339.

III. The CEC should amend its recommendation regarding right-of-way issues to acknowledge the pathways that exist for microgrids within the state’s existing regulatory and legal framework.

The *Draft 2020 IEPR Update* recommends that the CPUC, the publicly owned utilities, or the Legislature work to resolve right-of-way issues “without violating current laws and public safety codes in order to ensure public, system, and worker safety and equitable rates.”⁸ This sentence references the IOUs’ Electric Tariff Rule 18/19 and the underlying Public Utilities Code Section 218. These rules prohibit private entities outside of CPUC jurisdiction from delivering power to multiple customers. These rules are intended to safeguard consumers from being overcharged for an essential service, ensure that facilities are operated in a safe and reliable manner, and avoid the duplication of utility infrastructure.

⁵ *Draft 2020 IEPR Update*, p. 35.

⁶ *Draft 2020 IEPR Update*, p. 7.

⁷ *Draft 2020 IEPR Update*, p.

⁸ *Draft 2020 IEPR Update*, p. 40.

It is important to note that Tariff Rules 18 and 19 limit the types of microgrids for safety reasons where unregulated entities wish to distribute power to multiple customers, but does allow customers to form a microgrid that serves their own load the formation, as well as allow the formation of a multi-customer microgrid. They do not, for example, prevent a customer from forming a microgrid that serves their own load. They also do not prevent the formation of a multi-customer microgrid operated by a utility. Finally, Rules 18 and 19 do not prevent more novel ownership and operational models such as a multi-customer microgrid consisting of third-party-owned behind-the-meter generation and storage assets that serve their own load during normal grid conditions and then are controlled by a utility to serve other customers during grid outages. The *Draft 2020 IEPR Update* references one such project supported by the CEC's Electric Program Investment Charge (EPIC) program in Pacific Gas and Electric's territory: The Redwood Coast Airport Microgrid Project.⁹ SCE will also demonstrate the necessary capabilities to enable this type of microgrid in a project supported by the CEC's EPIC program: The Smart City Demonstration Project. SDG&E has had a multi-customer microgrid with a novel ownership model in operation since 2013: The Borrego Springs Microgrid. The Borrego Springs Microgrid consists of customer owned behind-the-meter generation, third party-owned in-front-of-the-meter generation, and utility-owned generation and storage to serve the entire community of Borrego Springs, a population of approximately 2,800 customers, during grid outages.

With these examples in mind, the Joint Utilities suggest that the CEC change its recommendation from "Address right-of-way issues" to "Identify novel DER ownership and operational models that enable multi-customer microgrids within the state's existing regulatory and legal framework." The CPUC and stakeholders will be exploring these pathways in Track 4 of the ongoing Microgrids and Resiliency Rulemaking (R.19-09-009). In addition, the Microgrid Incentive Program approved in the Track 2 Decision (D.21-01-018) will support multi-customer microgrids.

IV. Conclusion

The Joint Utilities thank the CEC for consideration of the above comments and look forward to continuing their partnership with stakeholders in the annual IEPR process, including the upcoming 2021 IEPR. Please contact us with questions or concerns. We are available to discuss these matters further at your convenience.

Very truly yours,

/s/

Dawn Anaiscourt

Mark Krause

⁹ *Draft 2020 IEPR Update*, p. 22.

Kent Kauss