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Comments on Draft IEPR Update Volume II

Additional submitted attachment is included below.



Enchanted Rock LLC
1113 Vine Street, Suite 101
Houston, TX 77002

March 22, 2021

VIA ELECTRONIC FILING

California Energy Commission
Docket Unit, MS-4
Re: Docket No. 20-IEPR-01
1516 Ninth Street
Sacramento California 95814-5512

Re: Comments of Enchanted Rock on the Draft 2020 Integrated Energy Policy Report Update, Volume II: The Role of Microgrids in California's Clean and Resilient Energy Future, Lessons Learned from the CEC's Research

Enchanted Rock appreciates the opportunity to provide comments on the Draft 2020 Integrated Energy Policy Report (IEPR) Update, Volume II: California's Clean and Resilient Energy Future, Lessons Learned from the CEC's Research.

Enchanted Rock provides resiliency solutions to large commercial, industrial, and institutional customers using its patented dual-purpose microgrid technology. The system is anchored by a clean and compact modular design capable of running on pipeline natural gas or renewable natural gas (RNG). Enchanted Rock has over 200 microgrids in commercial operation serving customers seeking high electric reliability for water utilities, grocery/pharmacy, manufacturing, healthcare and assisted living, and food distribution. Enchanted Rock's microgrids have a proven track record of maintaining a high degree of reliability and long-duration operation under adverse conditions, such as hurricanes and extreme cold weather events as recently seen in Texas.

Enchanted Rock Supports the Commission's R&D Efforts in The Transition to a Carbon-Free Energy Future

Enchanted Rock commends the Commission for its leadership in advancing research, development, and demonstration of microgrid technologies and supports further efforts. Microgrids have the opportunity to play an increasingly important role in providing California with clean energy and grid resilience.

The Report acknowledges that California's clean energy and decarbonization goals are *long-term* goals.¹ And while it is important for the state's energy organizations to place emphasis on how the issues addressed in each of their individual proceedings contribute towards the advancement of California's long-term goals, it is equally important not to

¹ "The long-term aim is for clean energy microgrids to be deployed rather than microgrids with fossil fuel-based back up power." (p.1)

lose sight of practical considerations when faced with the critical task of maintaining the flow of electricity to ensure the safety, health, and welfare of the people of California and their communities. In the long march toward “100% zero-carbon energy,” resilience of the electricity grid is of paramount importance. The Report wisely acknowledges that greater reliability and resiliency are necessary “to respond to future contingencies when they occur (such as wildfires, earthquakes, floods, and other natural and human-made [sic] disasters.” (p.16) Microgrids, including fossil-fueled microgrids, can play a critical role today in maintaining a reliable and resilient electricity grid.

Enchanted Rock recognizes the Commission’s mandate to support R&D efforts. To take but one example from the Commission’s R&D program, support for hydrogen-fueled microgrid solutions is worthy of further consideration. Yet hydrogen-fueled microgrid technologies require more research and development before they can be deployed broadly to replace diesel generation. Similarly, the Report acknowledges that solar and battery storage technologies do not currently provide a cost effective or a reliable source of power for long duration resiliency. The Report correctly notes that “Some clean energy microgrids include fossil fuel-based emergency generation when longer-duration protection is needed than can be provided with the renewables and energy storage contained in the microgrid.” (p. 1) Until costs decline and technology improves sufficiently, clean natural gas or renewable natural gas-fueled microgrids are the best commercially available technology for grid reliability. The Commission must not lose sight of the fact clean microgrid technologies are commercially available in the marketplace today, and that they can provide a cost-effective and long-duration solution to support the resilience of the grid compared to traditional diesel backup generation, even without drawing financial support from R&D funds.

Clean, Cost-Effective, Commercially Available Microgrid Technologies Can Support the Transition to a Carbon Free Energy Future

One needs to look no further than the number of certification applications before this Commission for Small Power Plant Exemptions (SPPE), which amount to hundreds of MW of backup generation for data centers. In today’s world, we rely on electricity to support all facets of every-day life, including increasing reliance on commercial activity and the internet. Data centers, which are at the heart of commercial activity, require a reliable source of backup power. Traditionally, diesel generation has been the main technology used for backup generation for data centers. However, legitimate concerns over emissions from diesel generation have been raised by the Air Resources Board (ARB), local air districts, and communities -- not only where data centers with diesel backup generation are proposed to be built, but also in communities which have had to rely on diesel generation to mitigate the impact of Public Safety Power Shutoff (PSPS) events and in disadvantaged communities where social and environmental justice and equity issues are paramount. It is feasible today to achieve significant reductions in local air emissions by deploying microgrids that run on natural gas or renewable natural gas. Furthermore, natural gas or renewable natural gas microgrids can be deployed more cost-effectively

than diesel or solar and storage backup—another critical consideration for low-income and disadvantaged communities. Commercially ready, clean alternatives to diesel backup generation are needed now, given the increase in planned diesel backup generation to support data center development. Enchanted Rock recommends that this issue be considered in the IPER Update.

Enchanted Rock Recommends the IEPR Update Broaden Its Focus Beyond R&D to Address Near- Term Policies and Actions to Support the Rapid Displacement of Diesel Backup Generation

Enchanted Rock recognizes that the Commission’s primary focus on microgrid technologies has been on R&D. Enchanted Rock commends the Commission’s R&D program for the strides it has made to advance the demonstration of clean microgrid technologies. Nevertheless, effort needs to be placed on near-term policies and actions to facilitate the deployment of microgrids to enable their role and contribution toward California’s clean and resilient energy future and to displace new diesel backup generation.

The IEPR Update is an appropriate forum to explore policies and to identify the role that it and its sister agencies, specifically CARB and the CPUC, can play in state energy policy development. Chief among the issues to be explored is the need to overcome barriers to the commercialization of microgrid technologies, consistent with SB 1339 in conjunction with the CPUC’s rulemaking (R. 19-09-009), and the use alternative fuels sources to replace diesel generation. For example, coordination among the agencies is needed to certify low carbon fuels for use in stationary sources to provide resource adequacy, as well as products and services to support grid reliability. In addition, coordination among the agencies is needed to clarify or amend rules to allow renewable natural gas-fueled generation to participate in demand response programs. The Update could address the issue of the adoption of best available control technologies (BACT) for local air districts concerned with the proliferation of diesel backup generation for use at data centers and in disadvantaged communities. In the same vein, the Commission could consider how its SPPE program might expedite processing of CARB-certified, low-carbon generation. Chapter 5 of the Update Report identified some of the regulatory challenges raised by stakeholders. The Update is an appropriate forum to explore these issues further and to expand the list of issues as indicated above.

Sincerely,

/s/

Allan Schurr
Chief Commercial Officer
aschurr@enchantedrock.com