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Enchanted Rock Comments to 21-ESR-01

Additional submitted attachment is included below.

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1113 Vine Street
Suite 101
Houston, Texas 77002

Comments From Enchanted Rock, LLC.,
For Summer and Midterm Reliability
Docket Number: 21-ESR-01

Introduction
Enchanted Rock is a microgrid developer, owner, and operator of resiliency as a service microgrids. We are commercially active in California and our standard California solution includes:

- Generation units that meet ultra-low California Air Resources Board Distributed Generation emissions levels, the cleanest reciprocating engine standard in the US;
- Use of renewable natural gas to provide zero carbon operation for both resiliency and grid services

Our portfolio also includes over 200 MW of capacity under construction in California, Illinois, Louisiana, New Jersey, Pennsylvania, Texas and Virginia, and over 550 MW of dispatchable generation capacity deployed in Louisiana, Mississippi, and Texas. Our assets protect critical services and facilities serving communities, including data centers, manufacturers, distribution centers, grocery stores, hospitals, nursing homes, water facilities, universities, and government facilities. When our customers are using utility power, our assets operate during system emergencies to provide valuable services to the grid with a fast start, dispatchable array of distributed assets.

The microgrids are fueled by underground low-pressure pipeline natural gas allowing our units to run without duration limitations or over-the-road refueling risk. In addition, given the ultra-low emissions profile of our gas engines, we can obtain air permits to operate without the run hour constraints faced by diesel fueled generators. Renewable natural gas, or biomethane, can be used economically to deploy fully decarbonized microgrids, given the relatively few run-hours required to cover local outages and system emergency events.

Workshop Themes
Throughout the Reliability workshop held on May 20, 2022, we heard that for coming months and years, energy supplies will be uncertain and unreliable, and capacity shortfalls are expected to occur. For example, the 2022 CEC Stack Analysis expects shortfalls of at least 1000MW during evening hours this August, growing to more than three times this shortfall during peak evening hours in September. Looking ahead, generator retirements slated for 2024 – 2026, will result in capacity shortfalls that battery energy storage alone simply will not be able to supply.

Clean, Dispatchable Resources to Meet The Governor's 5 GW Reliability Reserve Goal
A concerted effort should be made to avoid the cumulative public health and environmental effects of tens of thousands of emergency backup diesel engines that may be used in an emergency. As just one example, thousands of diesel emergency backup generators are sited in disadvantaged communities in the

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San Francisco Bay area.[1] In addition, diesel backup generation has grown exponentially throughout California. Over 12 GW are currently deployed across the Bay Area and South Coast Air Quality Management Districts, presenting a 33% and 22% increase respectively between 2018 and 2021.[2] Further, the frequency and run hours for diesel emergency generators are increasing, as these systems are being deployed to address increasing number of extreme weather-related events (including PSPS),[3] system capacity shortfalls, and failures from aging grid infrastructure.

Conversely, Enchanted Rock's generators are designed to meet California's strictest emissions standards and are CARB DG-certified for rapid deployment. Because natural gas generators are inherently more expensive than a typical Tier 2 diesel generator with the same level of output, policies and programs that create access to earn market revenues from deployment for grid stability, and that streamline gas interconnect and electrical interconnections, will help to further displace dirty diesel backup generation.

Policy Recommendations

1) Incentive programs for diesel replacement should be structured to prioritize clean, long duration, dispatchable capacity to provide maximum flexibility to support grid reliability and also to meet SB100 goals. Proposed criteria for prioritization include:
   - Five-minute startup; CARB DG certification for local emissions; and renewable fuel use (via RPS certification).
   - A combination of capacity and energy payments to support financing for capital investments required to meet the projected reliability and resiliency gaps, e.g., Base Interruptible Program-like capacity payments with access to real-time energy market prices for MWhs provided, whether load reduction, or generation exports.

2) An ELRP-like premium incentive if paired with CARB DG emissions limits. Anything less will enable diesel generation to run for longer hours to the detriment of local air quality and will limit the program's attractiveness to new capacity investments.

3) Streamline permitting process for clean, dispatchable emergency projects.

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[1] *Diesel Back-Up Generator Population Grows Rapidly in the Bay Area and Southern California*, prepared by M.Cubed.

[2] *Diesel Back-Up Generator Population Grows Rapidly in the Bay Area and Southern California*, prepared by M.Cubed

[3] (Preventing Wildfires with Power Outages: the Growing Impacts of California's Public Safety Power Shutoffs | PSE | Physicians, Scientists, and Engineers for Healthy Energy (psehealthyenergy.org)

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Suite 101
Houston, Texas 77002

Respectfully submitted by:

Allan Schurr
Chief Commercial Officer
Enchanted Rock, LLC.
aschurr@enchantedrock.com