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Post-Workshop Comments on Clean Energy Alternatives to Diesel Backup Generator Systems

See attached letter.

Additional submitted attachment is included below.



Enchanted Rock LLC
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Houston, TX 77002

February 12, 2021

VIA ELECTRONIC FILING

California Energy Commission
Docket Unit, MS-4
Re: Docket No. 19-ERDD-01
1516 Ninth Street
Sacramento, CA 95814-5512

Re: Post-Workshop Comments on Clean Energy Alternatives to Diesel Backup Generator Systems

Enchanted Rock appreciates the opportunity to submit these comments to supplement the record, following our presentation at the California Energy Commission's (CEC) workshop on January 21, 2021.

Near-Term Actions Can Support Rapid Displacement of Diesel Generation

Commercially ready, clean alternatives to diesel backup generation are needed now, given the increase in planned diesel backup generation to support data center development. Hydrogen-fueled solutions are worth consideration but require additional research and development before they can be deployed broadly to replace diesel. Substantial near-term local emissions reductions are feasible today, and global emissions reductions can be achieved by microgrids running on renewable natural gas, though barriers must be addressed to achieve economic parity with diesel generators.

Natural gas microgrids are the most cost-effective, long-duration, clean resiliency solution on the market. Enchanted Rock has proven the technical and commercial viability of the natural gas microgrids over hundreds of MWs deployed and over 300,000 unit run hours. In addition to traditional resiliency services, natural gas microgrids can provide the broader electricity market with dispatchable, fast-ramping, flexible capacity resources without the operating limitations of battery storage. As noted in the panelist discussion, backup generation in queue, if allowed to participate in resource adequacy, could exceed the MW shortfall identified during the rotating outages in 2020. Other markets have already identified the value of dispatchable data center backup generation resources and implemented rules to support their deployment.¹

Several near-term actions should be taken to support rapid displacement of diesel backup generation:

¹ See Eirgrid's "Data Centre Connection Offer Process and Policy" from July 17, 2020. Data centers in Ireland are required to have fully dispatchable, long-duration backup generation on site in order to qualify for firm connection with the grid.



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- The California Air Resources Board (CARB) should certify low carbon fuels for use in stationary sources for Demand Response resource adequacy and grid reliability.
- The California Public Utilities Commission should consider clarifications or amendments to regulations to allow participation by RNG-fueled distributed generation in Demand Response and other programs.
- Local air districts should consider making natural gas reciprocating engines the best available control technology, or "BACT."
- The CEC should consider expedited SPPE processing for CARB-DG certified, low carbon backup generation.

Enchanted Rock looks forward to continued engagement with the CEC, CPUC, CARB, and CAISO on these critical matters.

Sincerely,

/s/

Allan Schurr
Chief Commercial Officer
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