DOCKETED	
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CALIFORNIA
ENERGY COMMISSION

February 24, 2022

Digital Realty
C/O Scott A. Galati
1720 Park Place Drive
Carmichael, California 95608

Data Requests Set 5 for Lafayette Backup Generating Facility (20-SPPE-02)

Dear Mr. Galati:

Pursuant to Title 20, California Code of Regulations, sections 1941 and 1716, California Energy Commission (CEC) staff is asking for the information specified in the enclosed Data Requests Set 5, which is necessary for a complete staff analysis of the Lafayette Backup Generating Facility (LBGF) and associated Lafayette Data Center (LDC), collectively the "project" under the California Environmental Quality Act (CEQA).

Responses to the data requests are due to staff within 30 days. If you are unable to provide the information requested, need additional time, or object to providing the requested information, please send written notice to me and the Committee within 20 days of receipt of this letter. Such written notification must contain the reasons for not providing the information, the need for additional time, or the grounds for any objections (see Title 20, California Code of Regulations, section 1716 (f)).

If you have any questions, please email me at leonidas.payne@energy.ca.gov.

/S/

Leonidas Payne
Project Manager

Enclosure: Data Requests Set 5

LAFAYETTE BACKUP GENERATING FACILITY SPPE
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AIR QUALITY

BACKGROUND

The June 2021 Revised Emissions and Modeling Assessment (TN 238218; 6/15/2021) and the Revised Project Description (TN 238299; 6/21/2021) do not appear to be consistent with each other. Emissions estimates appear to include a different number of sources than specified in the Revised Project Description. The Revised Project Description shows "May 2020" in the footer, and says "*The 45 backup generators (44 for the data center suites, one for the PBB) will be located at the site...*" (p.2 of Revised Project Description).

However, in the Revised Emissions report (TN 238218; 6/15/2021), facility-wide emissions totals are based on 45 larger engines (model: QSK95-G9) plus one smaller engine, for 46 generators total (p.2 of Revised Emissions Report, and Appendix AQ-1). Also, the Revised Emissions Report says on p. 1 "*The Applicants decision to incorporate 46 Tier 4 diesel emergency generators...*" This is inconsistent with 45 generators mentioned in the Revised Project Description. The AERMOD modeling files submitted to staff electronically in June 2021, include 45 generators total, not 46.

DATA REQUESTS

132. Please provide a consistent project description for staff to review with respect to the total number of stationary sources, to clarify whether the project would include 45 or 46 generators total and the proposed size of each engine.
133. Please update the Project Description, site plans, and emissions/modeling assessments, as needed to reflect a consistent total number of stationary sources.

BACKGROUND

The June 2021 Revised Emissions report (TN 238218; 6/15/2021) requires additional supporting information to be fully reviewed by staff. The Revised Emissions report indicates that the larger generator (model: QSK95-G9) would achieve an emission factor of 0.5 g/bhp-hr of nitrogen oxides (NOx), but this factor would only be achieved after the catalyst is fully warmed up. Because the Tier 4 diesel engines would require approximately 15 minutes to warm up and achieve the targeted NOx emissions rate, the first hour of operation would be expected to cause emissions over the Tier 4 rate.

DATA REQUESTS

134. Please describe how the NOx emission factor for each engine would vary within a typical hour of routine testing while the catalyst begins as cold and warms up.

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135. Please quantify the maximum hourly rate of NOx emissions for each engine assuming that the catalyst may not be fully effective in controlling NOx emissions for 15 minutes or other demonstrated period of time after the initial startup of each engine.
136. Please evaluate ambient air quality impacts to 1-hour NO_2 concentrations relative to the NAAQS and CAAQS assuming that the catalyst in each engine begins as cold and warms up.
137. The June 2021 Revised Emissions report indicates that the smaller generator (model: QST30) could emit up to 3.25 lb/yr of PM2.5 or DPM (Table 4.3-5 and Table 4.3-12), but the annual PM2.5 modeling and health risk modeling includes insufficient emissions to match 3.25 lb/yr. (Source EG01 was modeled at 5.696×10^{-5} grams/sec, which would be an annual equivalent annual rate of only 1.65 lb/yr DPM.) Please review annual PM2.5 modeling and health risk modeling to ensure correct annual emissions rates were modeled for all generators.
138. The June 2021 Revised Emissions report lists a nearby residence and other receptors in Table 4.3-10 (Table 4.3-10: Sensitive Receptors Nearfield of the LBGF Site). Please provide a map showing these locations.
139. The Revised Emissions report (at p.19, TN 238218; 6/15/2021) indicates that a CEQA cumulative modeling assessment would be submitted upon the BAAQMD providing updated procedures. Please provide an updated assessment of cumulative health risks following the recommendations in the BAAQMD CEQA guidelines.

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GREENHOUSE GAS EMISSIONS

BACKGROUND Carbon Neutral Data Centers and Renewable Electricity for New Data Centers.

The City's draft 2022 CAP Update includes Action B-1-7, Carbon-neutral data centers, which would require all new data centers to operate on 100 percent carbon-neutral energy, with offsets as needed. For staff to conclude the project would be consistent with this policy and for staff to demonstrate that the project would employ all feasible means available to reduce its GHG emissions, staff needs to determine the feasibility of participating in SVP's Large Customer Renewable Energy (LCRE) program for 100 percent carbon-free electricity or purchase carbon offsets or similar instruments that accomplished the same goals of 100 percent carbon-free electricity.

DATA REQUEST

140. Please describe the feasibility of reducing the project's indirect emissions by the use of 100 percent renewable electricity by participating in SVP's LCRE program for 100 percent carbon-free electricity or purchasing carbon offsets or similar instruments that accomplish the same goals of 100 percent carbon-free electricity.