

DOCKETED

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**CALIFORNIA
ENERGY COMMISSION**



**CALIFORNIA
natural
resources
AGENCY**

October 6, 2020

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

Data Requests Set 3 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 3, 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 3

**LAFAYETTE BACKUP GENERATING FACILITY SPPE
DATA REQUESTS SET 3**

Table of Contents

AIR QUALITY 3
TRANSPORTATION 9
UTILITIES AND SERVICE SYSTEMS 11

LAFAYETTE BACKUP GENERATING FACILITY SPPE DATA REQUESTS SET 3

AIR QUALITY

FOLLOW-UP TO DATA REQUEST 22

BACKGROUND: CONSTRUCTION EMISSIONS

The original SPPE application contained two different versions of Table 4.3-6 (one each in TN 233041-1 and TN 233041-2), neither of which were supported by the CalEEMod report submitted at that time in SPPE application Appendix AQ4. The applicant recently filed a replacement Response 22 (in TN 234531; submitted: 8/28/2020) including electronic modeling files uploaded on 8/31/2020 to staff's ftp site. As before, the overall mitigated construction emissions in the CalEEMod results report do not match the construction emissions totals originally shown of the SPPE Application Table 4.3-6. At this time, the construction emissions estimates should be updated to reflect the activity of excavating for installing the generator fuel tanks below grade as described in Response 91 (in TN 234295).

DATA REQUEST

104. Please provide an updated analysis of demolition and construction emissions with a summary table to replace erroneous emissions rates previously summarized in the SPPE application Table 4.3-6.

FOLLOW-UP TO DATA REQUEST 27

BACKGROUND: CONSTRUCTION EQUIPMENT EXHAUST FROM FUGITIVE DUST

The applicant recently filed a replacement Response 27 (TN 234531; 8/28). The table in Response 27 includes an apparent typo in the construction-phase PM10 annual-average impacts, which appear to be greater than PM10 24-hour average impacts. Staff needs additional detail to confirm whether or why the annual-average PM10 impact should exceed the 24-hour impact. Also, staff would like to see the PM10 and PM2.5 results separated to distinguish construction equipment exhaust from fugitive dust.

DATA REQUESTS

105. Please confirm whether the construction-phase PM10 annual-average impacts would exceed the 24-hour average impacts and revise the table for Response 27.

106. Please quantify separately the PM10 and PM2.5 emissions rate and impacts from onsite construction equipment exhaust to distinguish them from the quantities of PM10 and PM2.5 emissions and impacts caused by fugitive dust.

LAFAYETTE BACKUP GENERATING FACILITY SPPE DATA REQUESTS SET 3

FOLLOW-UP TO DATA REQUEST 37 BACKGROUND: SENSITIVE RECEPTORS

The applicant did not fully respond to the data request to provide the information staff needs. The response indicated that "[t]he sensitive receptor list in Appendix AQ5 is presented below." But a list was not provided in the data response.

DATA REQUESTS

107. Please confirm that an update is not needed for Appendix AQ5 or provide the sensitive receptor list omitted in the Response to Data Request Set 1.

108. With only UTM coordinates, Staff cannot match the sensitive receptors in Appendix AQ5 with the receptors in Table 4.3-17, Table 4.3-21 and Table 4.3-23. Which sensitive receptor in Appendix AQ5 is the maximum exposed individual sensitive receptor (MEIS) (HARP #4531) in Table 4.3-17, Table 4.3-21 and Table 4.3-23?

FOLLOW-UP TO DATA REQUEST 40 BACKGROUND: TABLES 4.3-21 AND 4.3-22

Staff is still confused about the information presented in Tables 4.3-21 and 4.3-22. There are two points of maximum impact (PMIs), one from Table 4.3-21 and another from 4.3-22.

DATA REQUESTS

109. Please explain why there are two PMIs (one from Table 4.3-21 and another from 4.3-22), and which one is the PMI applicable to the proposed project?

110. Please verify that the PMI in Table 4.3-22 is the maximum exposed individual worker receptor (MEIW) and describe how it was derived.

FOLLOW-UP TO DATA REQUEST 42 BACKGROUND: TABLE 4.3-23

The cancer risk of PMI in Table 4.3-23 is 1.07E-05, which is higher than the threshold of 10 in one million.

DATA REQUEST

111. Please justify using a risk number which is higher than the threshold or provide mitigation to lower the potential health risk during construction so that the threshold is not exceeded.

LAFAYETTE BACKUP GENERATING FACILITY SPPE DATA REQUESTS SET 3

FOLLOW-UP TO DATA RESPONSE 53

BACKGROUND: CO2E CARBON INTENSITY (CI) FACTOR

The responses to Data Request 53 states that the applicant recalculated indirect GHG emissions using the CO₂e carbon intensity (CI) factor of 222 pounds per megawatt-hour (lbs/MWh), and references Attachment GHG DR-53. Staff was unable to find the attachment GHG DR-53. Staff will need an adequate and referenceable document to use the forecasted CI value of 222 lbs/MWh.

DATA REQUEST

112. Please provide the reference for the carbon intensity factor of 222 lbs/MWh and/or the attachment GHG DR-53.

FOLLOW-UP TO DATA RESPONSE 55

BACKGROUND: FUEL CELLS

Documents filed in the Walsh Data Center (19-SPPE-02) and other SPPE dockets assert that fuel cells and other alternative technologies could be viable at these data center project sites. Docket number 19-SPPE-02 TN# 233099, from the National Fuel Cell Center, states that fuel cells and other alternative technologies are practical for these applications.

DATA REQUESTS

113. Please discuss the viability of PEM (Proton Exchange Membrane) fuel cells and/or alternative technologies at the project site to potentially achieve carbon neutrality for the project's direct GHG emissions. Address how the facility's site would need to be redesigned or configured to accommodate fuel cells and any hydrogen storage tanks. Alternatively, discuss using other nearby sites to accommodate a fuel cell alternative. Include in the response alternative methods of providing feedstock for the fuel cell to the site and the reliability of each method versus refueling the onsite petroleum diesel storage tanks. For each fuel option, including diesel, including a full description of how the applicant weighs the risks of failure of fuel availability for each option.

114. Please discuss whether having a fuel cell as a primary supply of electricity, and using the local grid as backup, is or is not a feasible alternative to diesel backup generating units to meet the project's reliability objectives.

LAFAYETTE BACKUP GENERATING FACILITY SPPE DATA REQUESTS SET 3

FOLLOW-UP TO DATA RESPONSE 57

BACKGROUND: RENEWABLE DIESEL INVESTIGATION

In response to Data Request 57, the applicant states that a preliminary investigation was used to answer the data request 57; however, the applicant could not verify any emission reductions in order to properly respond to Data Request 57.

DATA REQUEST

115. Please provide additional details along with any assumptions that were used in the applicant's preliminary investigation that led to the conclusion that renewable diesel fuel is not practical for data center applications.

FOLLOW-UP TO DATA RESPONSE 61

BACKGROUND: RENEWABLE DIESEL FUEL

The response to Data Request 61 states "Digital Realty has been unable to find verifiable data relating to the use of renewable diesel fuel as a replacement for the CARB diesel fuel". The response states that renewable diesel may increase emissions of NOx and reduce PM10 emissions. Staff believes that the applicant may be confusing biodiesel with renewable diesel.

DATA REQUESTS

116. Please provide the "available unverified information" that provides evidence that renewable diesel may increase emissions of NOx and reduce PM10 emissions.

117. Please review and comment on the 2011 CARB technical report titled "CARB Assessment of the Emissions from the Use of Biodiesel as a Motor Vehicle Fuel in California -- Biodiesel Characterization and NOx Mitigation Study" and address the emissions expected to occur if renewable diesel or biodiesel were to be used at this facility rather than conventional petroleum diesel.

BACKGROUND: NO2 AMBIENT AIR QUALITY IMPACTS

The application models NO2 ambient air quality impacts for compliance with CAAQS and NAAQS using NO2 background conditions that should be updated. As in the May 2020 SPPE Application (p.66): "NO2 background data, also from the 158 East Jackson Street monitoring site, were calculated on a contiguous seasonal basis by hour for the last three years of monitoring data (December 2014 to November 2017)," Newer background data would be more representative of recent air quality trends.

LAFAYETTE BACKUP GENERATING FACILITY SPPE DATA REQUESTS SET 3

DATA REQUEST

118. Please reevaluate NO2 compliance with CAAQS and NAAQS using the most recent NO2 background conditions available and update Table 4.3-16 accordingly.

BACKGROUND: SENSITIVE RECEPTORS

During the September 4, 2020, Committee Conference and in public comments filed on September 12, 2020 (TN#234648), Rosalie Montalbano, Trustee of the Rosalie Montalbano Trust, stated a concern regarding the residences at 810 Comstock Street about 300 feet away from the project. It is said: "[The project] would be built near my property at 810 Comstock which consists of four detached single family residences that have been present at this location for 70+ yrs. They are grandfathered into the City of Santa Clara's plan for this area which is an industrial area. They are however legal, in existence, and house 4 families."

DATA REQUESTS

119. Please redo the Air Quality Analysis for criteria pollutant by including this receptor for both construction and operation activities.

120. Please redo the Health Risk Assessment for toxic air contaminants by including this receptor for both construction and operation activities.

BACKGROUND: PROJECT OWNERSHIP

During the August 12, 2020 Business Meeting at which the Walsh SPPE was approved, there was some discussion about whether or not the Lafayette Data Center and the Walsh Data Center have common ownership interests and should be treated as one project. BAAQMD Regulation 1-215 defines a facility as any property, real or personal, which may incorporate one or more plants all being operated or maintained by a person as part of an identifiable business on contiguous or adjacent property, and shall include, but not be limited to manufacturing plants, refineries, power generating plants, ore processing plants, construction material processing plants, automobile assembly plants, foundries and waste processing sites.

DATA REQUESTS

121. Please provide information supporting the contention that Walsh and Lafayette are separate projects according to the BAAQMD Rules and Regulations during the permitting process.

**LAFAYETTE BACKUP GENERATING FACILITY SPPE
DATA REQUESTS SET 3**

122. Please explain the relationship between the ownership interests of the Lafayette Data Center and the Walsh Data Center. If there is a common parent company for both, explain how the interests of each subsidiary company, in ownership percentage, relate to the parent company and how they are or are not treated as independent owners.

LAFAYETTE BACKUP GENERATING FACILITY SPPE DATA REQUESTS SET 3

TRANSPORTATION

BACKGROUND: CITY OF SANTA CLARA VMT POLICY AND PROJECT VMT ANALYSIS

CEC staff has previously used the Office of Planning and Research guidance to identify potential vehicle miles travelled (VMT) impacts for projects located within the City of Santa Clara. However, on June 23, 2020, in accordance with Senate Bill 743, the City of Santa Clara adopted a VMT Policy (Resolution No. 20-8861). For the City of Santa Clara to be able to rely on the CEC's CEQA document as a responsible agency, a VMT analysis is required for the project. Project VMT must be evaluated using the Santa Clara County VMT Evaluation Tool and must include consideration of the city's VMT thresholds of significance. The VMT evaluation tool can be accessed on the Santa Clara Valley Transportation Authority website and the city's VMT Policy resolution is attached to TN 235077.

DATA REQUEST

123. Please prepare and submit a VMT analysis for the Lafayette project in accordance with City of Santa Clara's VMT Policy.

BACKGROUND: FAA DETERMINATIONS OF NO HAZARD AND SITE ELEVATION DISCREPANCY

Staff reviewed the Federal Aviation Administration (FAA) Determinations of No Hazard included in Appendix E of the small power plant exemption (SPPE) application. The site elevation presented in the determinations is listed as 38 feet above mean sea level (AMSL) for all seven structures, Point A through Point G. The site elevation in the SPPE application and in the applicant's recent data responses is listed as 40 feet AMSL, a difference of two feet. The seven building points are located very close to where the airport runway ends, and a two-foot difference could result in changes to the FAA determinations. All seven forms must be re-filed with the FAA using a site elevation of 40 feet AMSL and re-submitted to the CEC.

DATA REQUEST

124. Please resubmit FAA Form 7460-1 for the project's seven structures using the 40-foot AMSL site elevation presented in the SPPE application. Please file to the docket copies of the re-filed information to the FAA and the resulting determinations when available.

LAFAYETTE BACKUP GENERATING FACILITY SPPE DATA REQUESTS SET 3

BACKGROUND: DEMOLITION AND CONSTRUCTION TRIP GENERATION

The Project Description section of the SPPE application states there would be demolition and construction activities, but no information is provided on the daily roundtrips generated by workers commuting to the project site and delivery and truck haul trips for demolition and construction activities. The SPPE application also states during site demolition activities and construction of the Lafayette Data Center (LDC) "roughly 4,000 cubic yards of fill would be removed from the site, to be replaced by 34,000 cubic yards of fill to be imported to the site" (page 17). However, no information is provided on the number of roundtrips generated from the removal and delivery of soil and/or fill.

On page 112 of the SPPE application the applicant stated, using the Institute of Transportation Engineers (ITE) rate, the project would produce an estimated 540 daily vehicle trips but that the ITE rate is a conservative estimate.

DATA REQUESTS

125. Please provide the average number of daily roundtrips, including both worker and delivery and truck haul trips, for the demolition and construction period of the project (LBGF and LDC).

126. Please provide an estimate of the actual the average number of daily roundtrips, including both worker and delivery and truck haul trips, for the operational period of the project (LBGF and LDC).

LAFAYETTE BACKUP GENERATING FACILITY SPPE DATA REQUESTS SET 3

UTILITIES AND SERVICE SYSTEMS

BACKGROUND

In the responses to Data Request Set 2, the applicant stated that it filed an application with the City of Santa Clara to get recycled water for industrial and landscaping uses. The applicant did not provide any information about the likelihood that the city will approve its request. Staff would like to know if the applicant contacted the city regarding availability and the likelihood that the city would approve the request for recycled water and the time frame for such approval to be granted.

DATA REQUESTS

127. Please provide any information the applicant might have received from the City of Santa Clara regarding availability of recycled water for the project and the likelihood that the city would grant approval to the project to get recycled water.

128. Please provide any information the applicant might have regarding the time frame for the city to process its application.

BACKGROUND

The applicant indicated in the application to the city that the project's demand would be approximately 106 acre feet per year (AFY) (100 AFY for industrial use + 6 AFY for irrigation). That is an increase of more than 50 percent over what the applicant had stated in the SPPE application. Staff would like an explanation for the substantial increase in the project's demand.

DATA REQUEST

129. Please explain why the amount of recycled water requested from the city is larger than that stated in the SPPE application by more than 50 percent.