

DOCKETED

Docket Number:	20-SPPE-03
Project Title:	Gilroy Backup Generating Facility
TN #:	236508
Document Title:	Data Requests Set 1
Description:	N/A
Filer:	Steve Kerr
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	1/28/2021 9:18:18 AM
Docketed Date:	1/28/2021



**CALIFORNIA
ENERGY COMMISSION**



**CALIFORNIA
natural
resources
AGENCY**

January 28, 2021

Amazon Data Services, Inc.
C/O Scott A. Galati
1720 Park Place Drive
Carmichael, California 95608

Data Requests Set 1 for Gilroy Backup Generating Facility (20-SPPE-03)

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 1, which is necessary for staff analysis of the Gilroy Backup Generating Facility (GBGF) and associated Lafayette Data Center (GDC), collectively the "project" under the California Environmental Quality Act (CEQA). This Data Requests Set 1 seeks further information in the areas of air quality, biological resources, cultural and tribal cultural resources, hazards and hazardous materials, hydrology and water quality, population and housing, transmission and interconnection, and transportation, based on the contents of the application submitted thus far. Staff may submit subsequent data requests in these and other resource areas, based on further information received or necessary for a complete analysis of the project.

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 1

**GILROY BACKUP GENERATING FACILITY SPPE
DATA REQUESTS SET 1**

Table of Contents

AIR QUALITY AND PUBLIC HEALTH..... 3

BIOLOGICAL RESOURCES..... 6

CULTURAL AND TRIBAL CULTURAL RESOURCES..... 8

HAZARDS AND HAZARDOUS MATERIALS 10

HYDROLOGY AND WATER QUALITY 11

POPULATION AND HOUSING..... 12

TRANSMISSION AND INTERCONNECTION..... 13

TRANSPORTATION 15

GILROY BACKUP GENERATING FACILITY SPPE DATA REQUESTS SET 1

AIR QUALITY AND PUBLIC HEALTH

BACKGROUND: AIR QUALITY DISTRICT APPLICATION

The proposed project would require a permit from the Bay Area Air Quality Management District (district or BAAQMD). For purposes of consistency, staff needs copies of all correspondence between the applicant and the district in a timely manner in order to stay up to date on any issues that arise prior to completion of the initial study.

DATA REQUEST

1. Please provide copies of all substantive district correspondence regarding the application to the district, including e-mails, within one week of submittal or receipt. This request is in effect until staff publishes the initial study or draft environmental impact report.

BACKGROUND: CALEEMOD MODELING FILES

The applicant used CalEEMod to estimate construction emissions (shown in Table 4.3-6 of the small power plant exemption (SPPE) application) and mobile and general building operational emissions (shown in Table 4.3-8). To validate the applicant's work, staff requests the CalEEMod input and output files that the applicant used to estimate emissions.

DATA REQUEST

2. Please provide the CalEEMod input and output files used to estimate construction emissions and mobile and general building operational emissions. If emissions are updated, please provide the CalEEMod files for the most updated emission estimates.

BACKGROUND: METEOROLOGICAL DATA AND BACKGROUND DATA USED IN MODELING

In the air dispersion modeling analysis, the applicant used the meteorological data for the calendar years 2013 through 2017. In the refined modeling analysis for the 1-hour nitrogen dioxide (NO₂) standards, the applicant used 2013-2017 hourly ozone data and 2015-2017 NO₂ data. However, more recent data from 2018 and 2019 have become available. For example, the BAAQMD provided meteorological data for 2018 and 2019 for another station for another project. The applicant should be able to get the updated meteorological data for the San Martin Airport from the BAAQMD. The ozone and NO₂ background data for 2018 and 2019 are readily available from the California Air Resources Board (CARB) or United States Environmental Protection Agency (US EPA). Staff needs modeling results for more recent years to make sure the most current and representative meteorological conditions and background data are considered in the impacts analysis of the project.

GILROY BACKUP GENERATING FACILITY SPPE DATA REQUESTS SET 1

DATA REQUEST

3. Please update the air dispersion modeling analysis with the most recent years of available data (i.e. 2015-2019 for the meteorological data and hourly ozone data and 2017-2019 for the NO₂ data. If 2020 data are available, please use the meteorological data and hourly ozone data for 2016-2020 and NO₂ data for 2018-2020).

BACKGROUND: OZONE MONITORING STATIONS

The SPPE application lists three ambient monitoring stations: the Gilroy monitoring station (for ozone and PM_{2.5} data), the San Jose-Knox Avenue monitoring station (for NO₂ and CO data), and the San Jose-Jackson Street monitoring station (for SO₂ and PM₁₀ data). However, staff noticed that ozone is also monitored at the San Martin monitoring station, which is about 4.8 miles north-northwest of the project. The San Martin monitoring station, located at 13030 Murphy Ave, San Martin, is about 0.3 mile from Highway 101. However, the Gilroy monitoring station (used by the applicant), located at 9th and Princevalle St, Gilroy, is about 1 mile from Highway 101 and 1.3 miles southwest of the project. Given the project's proximity to Highway 101, staff believes the San Martin monitoring station represents the ambient air quality conditions at the project site better than the Gilroy monitoring station, even though the Gilroy monitoring station is closer to the project. The applicant needs to revise the NO₂ modeling analysis with the ozone data from the San Martin monitoring station, unless it can demonstrate that using the ozone data from the Gilroy monitoring station would result in more conservative NO₂ impacts.

DATA REQUEST

4. Please revise the NO₂ modeling analysis with the ozone data from the San Martin monitoring station or demonstrate that using the ozone data from the Gilroy monitoring station would result in more conservative NO₂ impacts.

BACKGROUND: SENSITIVE RECEPTORS

On page 58 of the application (Table 4.3-5), the applicant provided a list of sensitive receptors near the project site. On Table 4.3-12 of the application, the applicant listed Health Risk Assessment (HRA) results for four receptors: PMI – Point of maximum impact, MEIR – Maximum exposed individual residential receptor, MEIW – Maximum exposed individual worker receptor and MEISR – Maximum exposed individual sensitive receptor. Staff needs more information to check the validity of the HRA.

GILROY BACKUP GENERATING FACILITY SPPE DATA REQUESTS SET 1

DATA REQUEST

5. Please provide the following information for PMI, MEIR, MIEW, MEIS and all the sensitive receptors on Table 4.3-5.
 - a. Their HARP receptor numbers.
 - b. Their latitude and longitude along with UTM coordinates. Staff needs this information for the cumulative HRA.

GILROY BACKUP GENERATING FACILITY SPPE DATA REQUESTS SET 1

BIOLOGICAL RESOURCES

BACKGROUND: Arborist Report

An Arborist Report (Appendix E, TN #236014) was provided as part of the SPPE application. This report provided some evaluation of 18 trees on and adjacent to the proposed project site. Page 2 of the arborist report includes the Gilroy City Code 30.38.270 Protect Tree Removal (d) application submittal details required, but deemed some items not relevant to all trees and therefore left some information out of the report. The information left out of the report is required for CEQA review, which includes the Gilroy City Code 30.38.270 for protected tree removal.

DATA REQUEST

6. Please provide an updated arborist report that includes the following:
 - a. circumference values for all trees,
 - b. a site plan of the existing trees over an aerial photograph with the identification of each tree,
 - c. details and information for items 1, 5, 7, 9, 10, 11, and 12 of the Gilroy City Code 30.38.270 Protected Tree Removal (d) application, and
 - d. a tree replacement table that includes the size (in circumference) and species of each tree to be removed and what size and species will replace it.

BACKGROUND: Nitrogen Deposition Modeling

Impacts of excessive nitrogen deposition to plant communities include direct toxicity and changes in species composition among native species such as enhancement of non-native invasive species. The increased dominance and growth of invasive annual grasses is especially prevalent in low-bio-mass vegetation communities that are naturally nitrogen limited such as serpentine habitats. Although the Gilroy Backup Generator Facility (GBGF) site does not contain suitable habitat for listed species, there is critical habitat for Bay checkerspot butterfly (federally endangered) within 6 miles of the project site. Although air emissions including nitrogen oxides (NO_x) were discussed in the SPPE application (TN 236004), no model or data to determine the total nitrogen deposition rate as well as the extent of the plume from the testing and maintenance of the proposed project's backup generators were provided. Nitrogen deposition resulting from NO_x emissions during the testing and maintenance of the backup generators of the proposed project would have potentially significant impacts on sensitive habitats (including critical habitat) and species nearby if the nitrogen deposition plume covers these areas.

While the proposed project is a "covered project" under the Santa Clara Valley Habitat Plan, the fees imposed are related to mobile emission sources only. Therefore, a separate evaluation of nitrogen deposition must be made for the backup

GILROY BACKUP GENERATING FACILITY SPPE DATA REQUESTS SET 1

generators, which contribute as a point source for NO_x emissions and hence nitrogen deposition.

DATA REQUESTS

7. Please use AERMOD or an equivalent model to provide an analysis of impacts due to total annual nitrogen deposition from the testing and maintenance of the backup generators. The analysis should specify the amount of total annual nitrogen deposition in kg/ha/yr at the designated critical habitat for Bay checkerspot butterfly. Please provide complete citation for references used in determining this number.
8. Please provide an isopleths graphic over the most recent aerial photographs (or equally detailed maps) of the direct total annual nitrogen deposition rates caused by the backup generators. This will be a graphical depiction of the project's nitrogen deposition contribution. Include on the aerial the location of the proposed project and the Bay checkerspot butterfly critical habitat.

GILROY BACKUP GENERATING FACILITY SPPE DATA REQUESTS SET 1

CULTURAL AND TRIBAL CULTURAL RESOURCES

BACKGROUND

Assessment of potential impacts on cultural and tribal cultural resources hinges in part on knowing the extent and character of ground-disturbing activities associated with a project. The SPPE application does not appear to identify whether major foundations (supporting generators, data center buildings, electrical substation, and the security building) would be solely on concrete slab foundations or concrete foundations on a deep pile system (see TNs 236004, 236015). Additionally, the application depicts four poles to carry an overhead electrical transmission line, although it does not disclose the diameter or depth of excavation required to install the poles (TN 236007).

DATA REQUESTS

9. How deep would the contractor have to excavate to build foundations for the backup generators, data center buildings, security building, and substation?
 - a. Please identify what type of foundation would be employed for each structure.
 - b. If identifying a single type of foundation is currently premature, please state the types of foundations under consideration.
 - c. Please provide depths of excavation for foundations in inches or feet from the top of the new grade, responsive to data requests a and b above.
10. Please describe the typical excavation required for the installation of the tubular steel poles in terms of diameter and depth below the new grade.

BACKGROUND

The applicant plans to import 210,000 cubic yards of fill soil to raise the project site's elevation (TN 236004, p.19). The application does not identify the source(s) of imported fill. Acquisition of soils from off-site sources could cause impacts to cultural or tribal cultural resources through equipment traffic and excavation at the source(s).

DATA REQUEST

11. Please describe the locations from which the applicant expects to obtain fill for construction of the proposed project.
 - a. Include the name(s) and location(s) of the fill source(s).
 - b. If the applicant has not yet identified the specific fill source(s), please describe their type (such as construction site, other property owned by the applicant, or commercial soil supplier).

BACKGROUND

The proposed project might require interim electrical service from Pacific Gas and Electric Company's (PG&E's) Llagas Substation. The applicant expects that PG&E would

GILROY BACKUP GENERATING FACILITY SPPE DATA REQUESTS SET 1

use existing underground substructures wherever possible in routing the interim electrical supply from Llagas Substation 1.5 miles to the project site. (TN 236004, p.23.)

DATA REQUEST

12. Please identify the likely route or routes of the interim electrical line on a street map and U.S. Geological Survey topographic quadrangle.

BACKGROUND

Appendix D to the application mentions a “future water treatment system” (TN 236014, Appendix D, p.2).

DATA REQUEST

13. Would the proposed project include a water treatment system?
 - a. If the project would include such a facility, please describe it and characterize the scale of excavation (particularly depth) required to construct it.

REFERENCES

- TN 236004—Amazon Data Services, Inc. *Gilroy Backup Generating Facility: Small Power Plant Exemption Application*. Submitted to California Energy Commission, Sacramento. December 2020.
- TN 236007—Amazon Data Services, Inc. Plan Set. Appendix A in *Gilroy Backup Generating Facility: Small Power Plant Exemption Application*. Submitted to California Energy Commission, Sacramento. December 2020.
- TN 236015—Amazon Data Services, Inc. Phase I and II Environmental Assessments. Appendices H and I in *Gilroy Backup Generating Facility: Small Power Plant Exemption Application*. Submitted to California Energy Commission, Sacramento. December 2020.

GILROY BACKUP GENERATING FACILITY SPPE DATA REQUESTS SET 1

HAZARDS AND HAZARDOUS MATERIALS

BACKGROUND: Fuel Tank Replenishment Strategies

The project design calls for a separate diesel fuel tank for each emergency generator. Each diesel engine would be readiness tested on a regular schedule, consuming a portion of its fuel.

DATA REQUEST

14. Please provide the fuel tank replenishment strategy and frequency, and the estimated frequency of fuel trucks needing to visit the facility for refueling.

BACKGROUND: Diesel Fuel Degradation Precautions

Stored diesel fuel is subject to degradation over time, which can render it unsuitable for use and potentially requiring it to be changed-out for fresh fuel.

DATA REQUEST

15. Please describe what measures are planned to maintain adequate quality of the stored fuel. Is the generator equipped with a fuel filtration system? How often might the stored fuel need to be changed-out for new? If needed, how would this be accomplished? How many fuel truck visits would be required?

GILROY BACKUP GENERATING FACILITY SPPE DATA REQUESTS SET 1

HYDROLOGY AND WATER QUALITY

BACKGROUND

The proposed project would import 210,000 cubic yards of soil to raise the site grade and attempt to reclassify the flood zone designation for a portion of the site. The application indicates that site grading and construction would alter the characteristics of the existing floodplain and could impede or redirect flood flows.

DATA REQUESTS

16. Please describe how long it is expected to take to receive approval from the Federal Emergency Management Agency (FEMA) for the proposed Conditional Letter of Map Revision-Fill (CLOMR-F), after the application has been filed with FEMA.
17. Please map the expected extent of the changes in flood stage as a result of the proposed placement of fill.

BACKGROUND

Modifications to the floodplain have the potential to impact neighboring properties or community floodplain management. Hence, FEMA requires a Community Acknowledgement form to accompany a CLOMR request.

DATA REQUESTS

18. Please provide feedback from the community floodplain manager that indicates acceptance of the proposed change to the floodplain and willingness to sign the Community Acknowledgement form.
19. Please provide a contact name, phone number, and email of the community floodplain manager.

BACKGROUND

As stated in the application for exemption, the proposed fill has the potential to, "alter the characteristics of the existing floodplain and could impede or redirect flood flows."

DATA REQUEST

20. Please describe any project design elements that might be necessary to mitigate for potential exacerbating flooding impacts at neighboring properties.

GILROY BACKUP GENERATING FACILITY SPPE DATA REQUESTS SET 1

POPULATION AND HOUSING

BACKGROUND: PROJECT CONSTRUCTION

Staff needs to know more about the construction of the Gilroy Data Center (GDC) and Gilroy Backup Generator Facility (GBGF), collectively "the project." The SPPE application notes on page 17 that construction of GBGF is expected to take 6 months and require 10-15 construction workers including one crane operator. For the construction of GDC, the SPPE application notes "Phase I, construction activities would last approximately 11 months. Phase II construction is estimated to be completed in approximately 10 months" and "average construction workforce is estimated to be 75 with a peak estimated to be 110 for each phase section" (pages 19 and 23). Staff has the following associated questions and requests:

DATA REQUEST

21. Please provide the estimated number of workers in the construction workforce by month and classification for Phase 1 and Phase 2 of the project.

BACKGROUND: PROJECT CONSTRUCTION AND OPERATION WORKFORCE

Staff needs to know about the assumptions used for the construction and operations workforce for the project. No assumptions were discussed in the SPPE application.

DATA REQUESTS

22. Where would the project construction and operation workforce be derived from?
Would the project construction and operation workforce be local or non-local (beyond a two-hour commute of the project site)?
23. What portion of the construction and operation workforce does the applicant anticipate would be local and what portion would be non-local?

GILROY BACKUP GENERATING FACILITY SPPE DATA REQUESTS SET 1

TRANSMISSION AND INTERCONNECTION

BACKGROUND

The SPPE application Section 3.3 indicates that the GDC would be supported from the new onsite substation to accommodate electricity to be delivered from PG&E. Staff requires a complete description of the both the GDC interconnection to the PG&E transmission grid and the reliability of the PG&E grid in order to understand the potential operation of the back-up generators.

DATA REQUESTS

24. Please provide a complete one-line diagram for the new onsite substation. Show all equipment ratings, including bay arrangement of the breakers, disconnect switches, buses, redundant transformers or equipment, etc. that would be required for interconnection of the GDC project.
25. Please provide a detailed description and a one-line diagram showing how the GDC would be connected to the onsite substation. Please label the name and voltage of the lines and feeders that connect to the substation and the GDC.
26. Please provide the conductor name, type, current carrying capacity, and conductor size for the 115 kilovolt (kV) transmission lines which connect the existing PG&E 115 kV Morgan Hill-Llagas line to the onsite substation. Please provide a map showing the route for this 115 kV overhead line.
27. Please provide a route map and description showing how the 21 kV underground cable would be connected to the GDC.
28. Please provide the 21 kV underground supply line cable name, type, current carrying capacity, configurations and measurements.
29. Please provide information that reviews the frequency and duration of historic outages of the Morgan Hill-Llagas 115 kV line and related facilities that would likely trigger the loss of electric service to the proposed onsite substation and could lead to the emergency operations of the diesel-powered generators. This response should identify the reliability of service historically provided by PG&E to similar customers in this part of its service territory.
30. Please explain whether adding the GDC would cause an overload to the PG&E transmission system which would require upgrades to the existing system.

GILROY BACKUP GENERATING FACILITY SPPE DATA REQUESTS SET 1

31. Please provide the following in regards to Public Safety Power Shutoff events:
- a. Would historical Public Safety Power Shutoff events have resulted in the emergency operations at the proposed GDC?
 - b. Have there been changes to the PG&E system around the GDC that would affect the likelihood that future Public Safety Power Shutoff events would result in the operation of emergency generators at the proposed GDC?

GILROY BACKUP GENERATING FACILITY SPPE DATA REQUESTS SET 1

TRANSPORTATION

BACKGROUND: PUBLIC ROADWAYS AND INTERSECTIONS

The project would be connected to a variety of municipal services, such as water and transmission lines, which may require construction activities located within the public right-of-way.

DATA REQUEST

32. Other than the planned driveways located at the termini of Camino Arroyo at the northern and southern borders of the site, would project construction (onsite and offsite) or operations temporarily or permanently alter any public roadways or intersections? If so, please identify which roadway and/or intersection would be affected, describe the alteration, and provide the duration of activities on the affected roadway and/or intersection.

BACKGROUND: Project Vehicle Miles Travelled (VMT) Analysis

Page 183, section 4.17.2 Checklist and Discussion of the SPPE application states, "A VMT analysis is currently being prepared by a transportation consultant and will be provided to the California Energy Commission in a subsequent submittal." The application states that the applicant's conclusion whether the project would conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b) is "to be determined".

DATA REQUEST

33. Please provide an analysis that evaluates the project's potential impacts related to VMT. Include applicable thresholds of significance, methodologies (such as a VMT Evaluation Tool), VMT heat maps, and transportation demand management plans or any other document supporting the project's consistency with CEQA Guidelines Section 15064.3, subdivision (b).