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RESPONSE TO CEC STAFF DATA REQUEST SET 4 (54-60)

Gilroy Backup Generating Facility (20-SPPE-03)

SUBMITTED TO: CALIFORNIA ENERGY COMMISSION
SUBMITTED BY: **Amazon Data Services, Inc.**

December 10, 2021



INTRODUCTION

Attached are Amazon Data Services, Inc. (ADS) responses to California Energy Commission (CEC) Staff Data Request Set No. 4 (54-60) for the Gilroy Backup Generation Facility (GBGF) Application for Small Power Plant Exemption (SPPE) (20-SPPE-03). Staff issued Data Request Set No. 5 on October 29, 2021.

For context the text of the Background and Data Request precede each Data Response.

GENERAL OBJECTIONS

ADS objects to all data requests that require analysis beyond which is necessary to comply with the California Environmental Quality Act (CEQA) or which require ADS to provide data that is in the control of third parties and not reasonably available to ADS. Notwithstanding this objection, ADS has worked diligently to provide these responses swiftly to allow the CEC Staff to prepare the Draft Environmental Impact Report (DEIR).

GREENHOUSE GAS EMISSIONS

BACKGROUND: Compliance with City of Gilroy 2040 General Plan

Page 126 of the SPPE application (TN 236004) lists the greenhouse gas (GHG) related policies included in the City of Gilroy 2040 General Plan that are applicable to the proposed project. However, the application did not discuss the project's compliance with these policies.

DATA REQUEST

54. Please describe the measures the project will incorporate to ensure compliance with the corresponding policies listed on page 126 of the SPPE application.

RESPONSE TO DATA REQUEST 54

It is important to note that ADS has designed the project for its own use and will own and manage the energy use for the Gilroy Data Center and therefore compliance with many of the Gilroy General Plan policies is proven through the design of the facility. As requested by Staff during a telephone conversation to clarify the requests, ADS provides the following modifications to describe how the GDC will comply with the General Plan policies identified on page 126 of the original SPPE Application.

Gilroy 2040 General Plan

The General Plan includes the following energy policies that are applicable to the proposed project.

Policies Description

NCR 3.1 Energy Use and Data Analysis.

Increase building owner, tenant, and operator knowledge about how, when, and where building energy is used.

ADS will be the owner and operator of the GDC and has created the design and is dedicated to operate the GDC as efficiently as feasible and practical. To that end, ADS employs a cooling technology that decreases energy use efficiently allowing the GDC to operate at an extremely low PUE and significantly below the industry average and the average of other data centers that obtained SPPE Approval from the Commission.

NCR 3.3 Shade Tree Program.

Increase community-wide use of shade trees to decrease energy use associated with building cooling.

The site does not lend itself to the use shade trees that would be effective in significant energy decreases for the data center to its mass and size. In addition, in working with City of Gilroy, the landscaping plan's primary purpose is to reduce water use at the site. The energy reduction from the cooling technology employed at the GDC is significantly more than would be obtained if shade trees were feasible.

NCR 3.10 Water Use Reduction.

Continue to implement water conservation policies contained within Gilroy's Urban Water Management Plan to achieve 20 percent per capita water reductions by 2020.

The GDC modified its water demand and is using recycled water. See Supplemental Response to Data Request 44 (TN240629) for the City of Gilroy's determination that the GDC complies with its Urban Water Management Plan.

NCR 3.13 Zero Waste.

Reduce municipal waste through procurement policies, waste diversion goals and waste stream monitoring and analysis.

ADS has a waste reduction strategy for all of its facilities and will comply with all City of Gilroy permit conditions and ordinances regarding its waste diversion goals. As determined in Sections 4.9 and 4.19 of the SPPE Application the project will not result in significant waste-related environmental impacts.

PFS 2.3 Sustainable Practices.

Minimize the generation of waste and maximize recycling programs, energy efficiency and conservation, and environmental practices that reduce water, electricity and natural gas use, and vehicle fuel consumption.

ADS has a waste reduction strategy for all of its facilities and will comply with all City of Gilroy permit conditions and ordinances regarding its waste diversion goals. As determined in Section 4.9 and 4.19 of the SPPE Application the project will not result in significant waste-related environmental impacts.

PFS 2.6 Leadership in Energy and Environmental Design (LEED).

Achieve the highest practicable LEED classification for all new public buildings.

As described in Section 4.8 of the SPPE Application the GDC has been designed to reduce electricity use to the extent feasible and practical.

Due to the heat generated by the data center equipment, cooling is one of the main uses of electricity in data center operations. In order to reduce GHG emissions and reduce the use of energy related to building operations, the project proposes to implement the following efficiency measures:

- Reflective roof surface
- Meet or exceed Title 24 requirements
- Electric vehicle (EV) parking
- Low flow plumbing fixtures
- Landscaping would meet City of Gilroy requirements for low water use

In addition, it is important to note that the CEC Staff should not rely on compliance with the General Plan in the same manner it would tier and rely on a properly adopted GHGRS. Please see Response to Data Request 55 below.

BACKGROUND: Analyzing GHG Impacts under CEQA

For data center projects recently analyzed by the CEC, the respective cities in which the facilities were located had adopted a qualified greenhouse gas reduction strategy (GHGRS) pursuant to sections 15064.4 and 15183.5(b) of Title 14 of the California Code of Regulations that staff could use to form the basis for part of the analysis. The City of Gilroy, in which this project would be located, has not adopted a GHGRS. If staff cannot rely on a GHGRS for part of its analysis, then a broader analysis under section 15064.4 must be undertaken. The application does not provide sufficient information to conduct this analysis.

DATA REQUESTS

55. Please describe if there is an applicable GHGRS that staff could use for the GHG analysis.

RESPONSE TO DATA REQUEST 55

ADS is not aware of an applicable GHGRS that staff could use for the GHG analysis. However, ADS has shown that the GDC will comply with the City General Plan policies relating to GHG reduction strategies and that the GHG emissions from testing and maintenance of the generators are less than the BAAQMD CEQA Significance Thresholds. With respect to the indirect emissions from the consumption of electricity for the GDC, ADS proposes the following Project Design Measure which will ensure that ADS's indirect emissions will be reduced by the use of 100 percent renewable electricity

from either Silicon Valley Clean Energy at the Green Start level which would be carbon free or through another energy provider that will deliver carbon free electricity to the facility.

PD GHG-1 The project owner shall participate in the Silicon Valley Clean Energy (SVCE) at the Green Start level (i.e., 100% carbon-free electricity) for electricity accounts associated with the project, or enter into an electricity contract with another electricity provider that can achieve the same goals of 100% carbon-free electricity as the SVCE.

56. Please describe the appropriate timeframe staff should apply to this project for the analysis of greenhouse gas emissions.

RESPONSE TO DATA REQUEST 56

With the assurance provided by PD GHG-1 above that the project will not have indirect emissions from electricity uses, there is no need to provide a timeframe for the project. However, data centers are estimated to operate for 30 to 50 years.

57. Please discuss the extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting. This discussion should include both the emissions resulting from the testing and maintenance of the backup generators and the indirect emissions associated with the data center's electricity use.

RESPONSE TO DATA REQUEST 57

The SPPE Application includes an estimate of the GHG from construction and operation of the entire project including testing and maintenance of the backup generators and the indirect emissions from the data center's electricity use. With the implementation of PD GHG-1, the GDC will not have indirect emissions from energy use.

BACKGROUND: GHG Reduction Strategies for Energy Use

Electricity used by the project would be delivered by the Pacific Gas and Electric Company (PG&E). Similar to other data center projects, the major source of the project's operational GHG emissions is indirectly through the generation of electricity needed to serve the project. In absence of a qualified GHG reduction strategy staff can rely on in its environmental review, an analysis of the project's consistency with the State's long-term climate goals or strategies is necessary. The application does not discuss two key state climate provisions, SB 100 or SB 350, or how this project would be consistent with those provisions by way of PG&E's efforts to comply with them. Lastly, to mitigate for the GHG emissions from

electricity use, one recent data center project (Great Oaks South Backup Generating Facility) has agreed to either purchase an existing utility-provided GHG- free electricity product or develop a clean energy program to mitigate its electricity use to a level equivalent to that product. Staff recognizes that the City of San Jose’s adoption of its GHGRS requiring the purchase of such products was the main impetus for the proposal in that case; nonetheless, staff would like more information about what mitigation opportunities might be available for this project’s electricity use.

DATA REQUESTS

58. Please discuss PG&E's Integrated Resource Plan and progress towards meeting goals beyond 2030.

RESPONSE TO DATA REQUEST 58

With the implementation of PD GHG-1, since the project will not have indirect emissions from electricity use, further analysis is not necessary for the Staff to conclude in the Draft EIR that the project will not result in significant GHG impacts, nor will interfere with the ability for PG&E to meet its statewide GHG goals and objectives.

59. Please discuss if PG&E currently produces sufficient electricity to meet the needs of the proposed GDC. If it does not, please describe how PG&E would procure or build additional resources to meet the project’s need, and what those resources would be.

RESPONSE TO DATA REQUEST 59

With the implementation of PD GHG-1, this question is no longer relevant to Staff’s analysis.

60. Please describe what GHG-free electricity products might be available for the GDC to purchase, or what independent programs the GDC could develop to reduce the GHG emissions resulting from the project’s electricity use.

RESPONSE TO DATA REQUEST 60

With the implementation of PD GHG-1, this question is no longer relevant to Staff’s analysis.