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# **San José City Data Center (19-SPPE-04)**

## **Informal Data Response Set 1 (Project Objectives)**

Submitted to  
California Energy Commission

Prepared by  
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with technical assistance from

**JACOBS**<sup>®</sup>

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## Introduction

Attached are Microsoft Corporation's (Microsoft or the Applicant) responses to the California Energy Commission (CEC) Informal Data Request, Set 1 regarding the San José City Data Center (SJC02) (19-SPPE-04) Small Power Plant Exemption (SPPE).

## Response to Staff Project Objectives Informal Data Request Set 1

- 1) What is the required reliability factor for the project?

**Response:** The required reliability factor for the SJC02 is 99.999 percent, which represents approximately 5 minutes of down time per year.<sup>1</sup>

- 2) What are the project objectives, including the primary goal and project purpose?

**Response:** The Applicant is continuing to develop project objectives and will provide a response by the end of March.

- 3) Can the applicant provide more information substantiating the conclusion that the alternatives considered are not feasible for the project?

- a. In particular, regarding the applicant’s consideration of natural gas engines, if the applicant decides not to switch to this engine type, please provide a robust explanation of why natural gas is not proposed by the applicant.

**Response:** The Applicant has reviewed the use of natural gas engines for its standby generators and has determined that it will proceed with the current design, using the Tier 4 compliant diesel standby generators.

The SJC project’s operational greenhouse gas emissions (GHG) from the operation of the diesel standby generators were presented in Table 3.8-1 of the Small Power Plant Application (Transaction Number: 240741). This table shows SJC’s standby generator GHG emissions were estimated at a maximum of 3,529 metric tons of CO<sub>2</sub>e per year compared to the Bay Area Air Quality Management District CEQA significance threshold of 10,000 metric tons of CO<sub>2</sub>e per year. The expected GHG emissions from testing and maintenance will be significantly lower. The primary environmental benefit to using natural gas engines would be to reduce CO<sub>2</sub> emission, yet use of natural gas will not entirely eliminate the already low operational GHG emissions associated with the diesel standby engines.

Use of natural gas would require the Applicant to construct a new natural gas pipeline, secure additional easement rights for the pipeline, and construct an onsite natural gas metering yard—a significant amount of improvements for something that will only be used for a maximum of 42 hours per year. In addition, these improvements and the natural gas generators would significantly increase project costs for what would ultimately account for minimal environmental benefit overall.

- b. Are there other viable fuel alternatives, such as fuel cells, that the applicant is considering?

**Response:** The use of other viable fuel/generation alternatives reviewed by the Applicant do not provide the required reliability and commercial availability of the proposed diesel standby generators.

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<sup>1</sup> 5.26 minutes/year = (1-0.99999/100) \* (8760 hours/year \* 60 minutes/hour)