

DOCKETED

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RESPONSE TO CEC STAFF DATA REQUEST SET 1 (1-5)

Great Oaks South Backup Generating Facility (20-SPPE-01)

SUBMITTED TO: CALIFORNIA ENERGY COMMISSION

SUBMITTED BY: **SV1, LLC**

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INTRODUCTION

Attached are SV1, LLC's (SV1) responses to California Energy Commission (CEC) Staff Data Request Set No. 1 (1-5) for the Great Oaks South Backup Generation Facility (GOSBGF) Application for Small Power Plant Exemption (SPPE) (20-SPPE-01).

The Data Responses are grouped by individual discipline or topic area. Within each discipline area, the responses are presented in the same order as Staff presented them and are keyed to the Data Request numbers (1-5).

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

GREENHOUSE GAS EMISSIONS

BACKGROUND

To better describe the greenhouse gas footprint, annually and in total, of a data center, staff is interested in understanding the service life of a typical data center, including the Great Oaks South Data Center.

DATA REQUESTS

1. For how many years does SV1, LLC expect the Great Oaks South Data Center to be commercially viable and operating?

RESPONSE TO DATA REQUEST 1

The simple answer is that a data center is a building and not a piece of equipment and therefore does not have a design life. This is different than how the electricity industry treats a power plant. A power plant is treated like a large piece of equipment and therefore is easy to assign a design life. A data center building is supported by equipment (electrical switchgear, HVAC systems, building management computer hardware and software, etc.) all of which have different design life cycles. However, since the data center is a building that incorporates equipment, the life of a data center can be extended through proper maintenance and/or upgrade or replacement of the equipment. Therefore, it would be speculative to determine the lifespan of a typical data center as it would be largely driven by the economics of whether the building location and design continues to meet the demands of its tenants.

Additionally, we believe that the purpose of Staff issuing these data requests was to attempt to address the comments by the Bay Area Air Quality Management District (BAAQMD) on the Initial Study/Mitigated Negative Declarations (IS/MND) for the Walsh Backup Generating Facility and the Sequoia Backup Generating Facility¹. We believe the BAAQMD comments incorrectly assert that GHG emissions must be calculated out to the year 2050 in order to comply with the CEQA.

First the BAAQMD relies on caselaw² that is not applicable to a data center project. The case relied upon involves a long-term regional development plan for the San Diego area that was intended to guide the area's transportation infrastructure from 2010 to 2050. A programmatic CEQA approach would look at the impacts of that plan from 2010 to 2050 including an estimate of GHG if the plan were implemented. In the case of that plan, the specific transportation-related actions of the plan are laid out and therefore the GHG emissions from each action can be estimated over the planning

¹ TN232507; TN232242.

² (Cleveland Nat'l Forest Foundation v. San Diego Ass'n of Governments (2017) 3 Cal.5th 497, 516)

horizon. The GHG emissions from actions laid out in the San Diego transportation plan are not speculative because they are “planned” and within the control of the agency implementing the plan. Therefore, it is reasonable to compare those emissions to goals and policies for GHG reductions over the same planning horizon. Additionally, because individual components of the plan would receive project-level approval throughout the planning horizon up to the year 2050, it is appropriate to analyze the plan’s emissions against future targets and thresholds that would be in place when those project-level approvals occur and the individual components are constructed and become operational. Conversely, for a near-term development project such as a data center, it is more appropriate to discuss the project’s consistency with existing local, regional, and statewide efforts to meet interim GHG targets as part of an overall strategy to achieve the 2050 reduction goal along a trajectory of continual emissions reduction.

For the GOSDC, the vast majority of GHG emissions are an indirect effect. The GOSDC requires electricity and PG&E’s provision of electricity results in GHG emissions. A proper analysis of whether the GOSDC would have a significant cumulative impact of GHG emissions should focus on PG&E’s GHG emission profile from the procurement and direct generation of electricity, which is exactly the approach taken in the SPPE Application and Staff’s prior IS/MNDs for other data center projects. With respect to comparing GHG emissions to the State’s future goals and policies, a more pertinent question should be whether the GHG emission profile of PG&E is compliant with those future goals and policies and whether the addition of the GOSDC load would interfere with PG&E’s ability to continue to meet those goals and policies of the State.

As the Commission is a main driver of GHG reduction goals for the electricity sector, it is well aware that the electricity sector’s innovation is often driven by the provision of new generation sources. This is done by renewable procurement targets applied to utilities such as PG&E and requirements that new non-renewable sources of electricity meet efficiency standards. Therefore, new electricity demand allows utilities to increase GHG free or GHG reduced sources of generation with additional procurement. This structure has made it possible for the State of California to meet its RPS goals and will be critical to meeting the future goals and policies that BAAQMD identifies in its comment letter. It is not required by CEQA, nor is it reasonable, to evaluate in a project level CEQA analysis for a data center which only indirectly results in GHG emissions from the consumption of electricity, the statewide goals for the electricity sector. The conclusion is simply that the GOSDC’s demand for electricity does not prevent, and may likely contribute to, PG&E’s generation profile meeting the GHG and RPS goals of the State.

With this background in mind, the GOSDC will continue to operate as long as its tenants continue to use it as a facility to house its servers.

2. Would this be a typical service life for other new and existing data centers?

RESPONSE TO DATA REQUEST 2

See Response to Data Request 1.

3. What data center features (safety, security, size, contingency, redundancy) might affect typical data center service life?

RESPONSE TO DATA REQUEST 3

The primary driver will be customer demand. SV1 intends to maintain the data center to make it commercially attractive to its customers for as long as it is able. This may involve upgrades to equipment and systems and redesign of interior layouts.

4. Are there certain steps and procedures used to extend a typical data center service life?

RESPONSE TO DATA REQUEST 4

See Response to Data Request 1 and 3.

5. What typically happens to a data center at the end of its typical service life? Does it get refurbished, retrofitted, repurposed, or replaced?

RESPONSE TO DATA REQUEST 5

As discussed above, the maintenance, upgrade and retrofitting of the equipment and systems that support the functions of the data center building takes place over time consistent with customer demand. Therefore, SV1 has not set a design life for the GOSDC.