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In the matter of:

Great Oaks South Backup

Generating Station

Docket 20-SPPE-01

Robert Sarvey's Post Hearing Brief

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Introduction

The primary dispute in the proceeding centers around the modeling of air quality impacts from the operation of the project's emergency generators. There is no dispute about the project's purpose. The applicant states that the, *"The GOSBGF will consist of a total of 36 diesel fired generators that will be used **exclusively** to provide backup generation to support the Great Oaks South Data Center (GOSDC)"*.¹ Despite the project's purpose which is to operate in emergency mode to support the data center the impacts from operating in emergency mode are not quantified to determine whether the project operating in emergency mode will create a significant impact. This is contrary to CEQA as the CEQA process is primarily designed to identify and disclose to decision makers and the public the significant environmental impacts of a proposed project prior to its consideration and approval. Cal Code Regs. tit. 14, Section 15002 (a) states the basic purposes of CEQA. *"The basic purposes of CEQA are to: (1) Inform governmental decision makers and the public about the potential, significant environmental effects of proposed activities."* Without determining the impacts from emergency operations, the EIR fails to inform the decision makers and the public of the impacts of the basic purpose of the project. The responsible air quality agency in this action the Bay Area Air Quality Management District has advised the commission in its comments on both the notice of preparation² and comments on the Draft EIR³ to model the project impacts in emergency mode to comply with CEQA. The Trustee agency in this proceeding the California Air Resources Board has also appeared in this proceeding at the September 23, 2020 Committee conference and informed this committee that, ***"CARB strongly encourages more detailed air quality impact analysis that is based on or, at least, includes the likely scenario that multiple generators will be running simultaneously."***⁴ And this is not the first time CARB and BAAQMD have requested

¹ Exhibit 100 Page 8 of 240

² Exhibit 302 Page 2 "The EIR should include various scenarios of backup power generation operations beyond routine testing and maintenance."

³ Exhibit 303 Page 3 "Backup generators are operating more frequently than previously understood because of climate change induced crises¹ and grid operational challenges,² and as such, it is critical to consider the impacts of operating the emergency backup diesel generators. Air District staff recommends that the DEIR include GHG, criteria pollutant, and toxic air contaminant (TAC) impacts due to the nontesting/non-maintenance operations of backup power generators."

⁴ TN 234905 Transcript of the 9-23-20 re: Committee Conference Page 17, 18 of 80 CARB attorney Wesley Dyer.

that the commission model emergency operations at Bay Area Data Centers. In the Sequoia data center proceeding CARB provided extensive comments on air quality analyses conducted by CEC Staff on data center proceedings at the CEC, generalizing that all of the data centers need to model emergency operations.⁵ CARB stated, ***“CARB recommends that the short-term criteria pollutant and toxic air contaminant ambient air quality impacts due to the emergency operation of the backup generators for the proposed project be evaluated.”***⁶ CARB's and BAAQMD's comments provide substantial evidence demonstrating that emergency operations are a common place operation at data centers, and a reasonably foreseeable use which requires analysis under CEQA. Lead agencies must consider a project's direct and indirect significant impacts on the environment, “giving due consideration to both the short-term and long-term effects.” (CEQA Guidelines, § 15126.2, subd. (a).) Despite the requirements of CEQA, the recommendations of the responsible agency and the trustee agency the EIR fails to examine the potential environmental impacts from the project operating in emergency mode. CEC Staff presents several arguments why emergency modeling is speculative and cannot be accomplished. Staff's position is not supported by the evidence in the record. The assumption that the generators will only operate for 20 hours per year and will not be operated as designed (for emergency use) throughout the course of any given year clearly does not meet the requirements in CEQA to evaluate the operational impacts of the project.

Evidence Shows Emergency Operations are not Infrequent.

First CEC Staff claims that, *“the best indicator that this project will not result in significant adverse impact to air quality from emergency operations is the continued infrequency of such events and the fact that in the rare instances when they do occur they are of limited duration.”*⁷ BAAQMD the responsible agency submitted comments on the Notice of Preparation that included data collected by BAAQMD on

⁵ TN 235271 Sequoia Data Center CARB Comments on Air Quality Analysis

⁶ TN 235271 Sequoia Data Center CARB Comments on Air Quality Analysis Page 9

⁷ RT 9-21-21 Page 36 Lines 12-16

emergency use of diesel generators at data centers in the Bay Area.⁸ According to BAAQMD, *“Between September 1, 2019, and September 30, 2020 nearly half of the identified data centers in Santa Clara, San Jose, and Sunnyvale operated backup diesel generators for reasons other than routine testing and maintenance. Many of the data centers operated diesel generators during multiple nontesting/non-maintenance events; non-testing/non-maintenance hours of operation approached 50 hours for one generator for one event; it appears 40 or more generators operated concurrently at two facilities; and one facility ran diesel generators for approximately 400 hours for non-testing/non-maintenance purposes over the course of the period.”*⁹

CEC Staff analysis of the BAAQMD’s data shows that the possibility of a data center operating in emergency mode in BAAQMD’s jurisdiction is 44% over the 13 month period covered by the data.¹⁰ Data Submitted by the applicant shows that Equinix Data Center SV5 in San Jose operated in emergency mode in consecutive years 2019 and 2020.¹¹ Evidence in the record shows that the BAAQMD data indicates that there would be a 20.5% chance that any data center would conduct emergency operations when considering only the Santa Clara Data centers that did not respond to an electrical emergency as representative of Bay Area Data Center outages.¹² With or without considering electrical emergencies or PSPS events the projects emergency operations will not be infrequent. While data center emergency operation is unpredictable it is not infrequent as staff has claimed.

Evidence Shows Emergency Operations are not of Short Duration.

Staff claims that emergency operations are of short duration. Staff’s analysis of the emergency operation data submitted by BAAQMD concluded that the overall number of hours of operation for the less than half of the facilities in the review that did

⁸ Exhibit 302

⁹ Exhibit 302 Page 2

¹⁰ RT 9-21-21 Page 43 Lines 15-19 MR. SARVEY: Okay, so 20 out of 45 responded, had emergency operations so it’s 44 percent of those that responded had emergency operations during that 13-month period; is that correct? DR. QIAN: You can interpret like that, yes.

¹¹ Exhibit 19 Page 3 Evidence shows Equinix’s three data centers did not participate in BAAQMD’s survey but two experienced outage in consecutive years. Exhibit 19 Page 3, Exhibit 302

¹² Exhibit 300 Page 4

run was 0.07 percent of the available time.¹³ So the evidence presented by CEC Staff determined that the facilities that did operate averaged 6.65 hours of operation which could hardly be characterized as short duration. Considering that the operation of just one generator for one hour would create an impact which is 85% of the States NO₂ standard,¹⁴ operation of multiple generators for 6.65 hours would likely cause an exceedance of the State 1-hour NO₂ standard.

CARB and BAAQMD Advised the CEC to Perform Emergency Operation Modeling.

CEC Staff testimony states that, “CEC Staff then posits that, *“CARB and BAAQMD agree the use of Tier 4 engines is adequate in this case and, given the circumstances, further modeling of emissions may not be necessary if the project applicant agreed to this project change.”* Staff expects that the same recommendation applies to the Great Oaks South Backup Generating Facility, which would also meet Tier 4 emission standards”¹⁵ But under oath CEC staff admits that BAAQMD has specifically requested that the CEC Staff perform modeling of this projects impacts in emergency operation.¹⁶

CEC Staff claims that the California Air Resources Board has not advised them to conduct emergency modeling in this proceeding but the administrative record demonstrates otherwise. Cal. Code Regs. tit. 14 § 15064 (c) requires that, “In determining whether an effect will be adverse or beneficial, the lead agency shall consider the views held by members of the public in all areas affected as expressed in the whole record before the lead agency.” Wesley Dyer, an attorney for the California Air Resources Board appeared at the September 23, 2020 committee status conference stating, “In particular, **CARB strongly encourages more detailed air quality impact analysis that is based on or, at least, includes the likely scenario that multiple generators will be running simultaneously.**”¹⁷ While possibly CEC Staff was not

¹³ Exhibit 205 Page 2

¹⁴ Exhibit 200 Page 4.3-31 Table 4.3-10

¹⁵ Exhibit 200 Page 7-19

¹⁶ T 9-21-21 Page 39 Lines 13,14

¹⁷TN 234905 Transcript of the 9-23-20 re: Committee Conference Page 17- 18 of 80 CARB Wesley Dyer.

aware of CARB's request all members of the committee attended the committee conference¹⁸ and heard CARB's recommendations.

Modeling Emergency Operations Impacts is not Speculative and is required by CEQA

CEC Staff claims that, "that assessing the air quality impacts of emergency operations would require a host of unvalidated, unverifiable, and speculative assumptions about when and under what circumstances such a hypothetical emergency would occur."¹⁹ CEC Staff would use the same assumptions they used in modeling the air quality impacts of one engine the only different variable would be the number of engines. CEC Staff conducted an analysis of emergency operations in the Laurelwood Data center proceeding. According to the Commission Final Decision on Laurelwood, "*Staff stated that occasional emergency operations are foreseeable, and the emissions that could occur during an emergency operation can be reasonably estimated.*"²⁰ CEQA requires analysis of the "whole of an action," including the "direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment."²¹

The Laurelwood decision also demonstrates that the assumptions and standards of significance that CEC Staff utilized calculating impacts from emergency operations at the Laurelwood data center are not speculative nor are the results of the analysis meaningless. The decision states. "*In performing these analyses, Staff used two different operating profiles: 33 generators operating at 100 percent load simultaneously and 41 generators operating at 75 percent load simultaneously. Staff concluded that the 1-hour NO₂ standard would not be exceeded at the nearby apartment complex, or the nearest residential neighborhoods to the north, or the other sensitive receptors.101 The 24-hour modeling showed that the PM₁₀ SIL and the 24-hour PM_{2.5} National Air Quality Standard would not be exceeded at the nearby 22 apartment complex, or the nearest residential neighborhoods to the north, or the other sensitive receptors. Thus, Staff's modeling results conclude that the projects emergency operation would not*

¹⁸ TN 234905 Transcript of the 9-23-20 re: Committee Conference Page 3 of 80

¹⁹ Exhibit 205 Page 3

²⁰ TN 232394 Laurelwood Final Commission Decision Page 21

²¹ Pub. Resources Code § 21065; 14 C.C.R. § 15378(a)

expose sensitive receptors to significant criteria pollutant concentrations. ²² As in all other CEC criteria pollutant analyses the State and Federal ambient air quality standards are the standards of significance in determining if any air quality impact is significant.

CARB addressed CEC Staff's assertion that emergency operations were speculative in their October 15 2020 comments on CEC Staff's air quality assessment of the Sequoia Data Center. CARB stated in its evaluation **“In CARB’s view, data center emergency operations are not speculative, and an evaluation of their operations during loss of power—for which the centers are being specifically designed, and for which they are marketed to customers—is also not speculative.”** As the court stated in *Laurel Heights Improvement Association V. Regents of California*, *“The fact that precision may not be possible, however, does not mean that no analysis is required.”* (*Improvement Association v. Regents of University of California* (1998) 47 Cal.3d 376, 396.) In the *Concerned Citizens villa School District*, the court stated that, *“Technical perfection is not required; the courts have looked not for an exhaustive analysis but for adequacy, completeness and a good-faith effort at full disclosure.”* (*Concerned Citizens of South Central Los Angeles v. L.A. Unified School Dist.* (1994) 24 Cal.App.4th 826, 836 (Concerned Citizens) CEQA Guidelines Section 15147 requires that, “The information contained in an EIR shall include summarized technical data, maps, plot plans, diagrams, and similar relevant information **sufficient to permit full assessment of significant environmental impacts by reviewing agencies and members of the public.**”

Staff states that, *“In addition there's no clear significance thresholds to apply to emergency operations. And no agency has adopted these thresholds for use in evaluating emergency situations.”* CARB has already disagreed with that premise as CARB stated in its October 15, 2020 comments on the Sequoia Data Center Air Quality Analysis which was developed to apply to all data centers before the CEC. CARB stated, “CARB also notes that evaluation of emergency operations would likely use the same significance thresholds as CEC uses for evaluation of generator maintenance

²² Laurelwood Final Commission Decision Pages 21, 22

impacts; CARB is not aware of any reason to rely on separate significance thresholds for air quality impacts from maintenance operation as opposed to power outage operation.”²³

By not considering and mitigating emissions from emergency operation these emissions remain unmitigated and will be a significant impact. Emergency emissions in combination with maintenance and testing emissions or by themselves may exceed BAAQMD daily and annual thresholds of significance. In *Sierra Club Vs. the City of Fresno* the court reasoned that, “if it is not scientifically possible to do more than has already been done to connect air quality effects with potential human health impacts, the EIR itself must explain why, in a manner reasonably calculated to inform the public of the scope of what is and is not yet known about the Project’s impacts.” (*Sierra Club v. County of Fresno*, Cal. Supreme Court Case No. S219783 (Dec. 24, 2018) CEC Staff’s EIR fails to provide any estimate of the project’s emergency operations impacts and their impacts on the environment.

Conclusion

The stated purpose of the project is to provide electrical power to the data center in event of an emergency. The EIR fails to evaluate the impacts from the projects stated purpose and therefore fails to inform the decision makers and the public of the projects impacts in violation of CEQA’s primary purpose. CEC Staff’s argument that emergency operation is infrequent and of short duration is not supported by substantial evidence in the record. The evidence demonstrates that there is a 44% chance of any data center in the Bay Area operating over a 13-month period. The evidence shows that the average duration of emergency operation at data centers evaluated is over 6 hours. Both the responsible agency BAAQMD and the trustee agency the California Air Resources Board have advised the commission that their CEQA responsibilities include modeling impacts from emergency operation of the diesel generators at the Great Oaks

²³ TN 235271 California Air Resources Board, CARB Comments on Air Quality Analysis Page9
[file:///C:/Users/sarve/Downloads/TN235271_20201015T162738_California%20Air%20Resources%20Board%20Comments%20-%20CARB%20Comments%20on%20Air%20Quality%20Anal%20\(2\).pdf](file:///C:/Users/sarve/Downloads/TN235271_20201015T162738_California%20Air%20Resources%20Board%20Comments%20-%20CARB%20Comments%20on%20Air%20Quality%20Anal%20(2).pdf)

South Data Center. Accordingly, the EIR should be revised to include an evaluation of emergency operations and mitigate any potentially significant impacts.

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