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State of California
State Energy Resources Conservation and Development Commission

In the matter of:

Sequoia Data Center

Docket 19-SPPE-03

Intervenor Robert Sarvey's Comments on the Motion to Remand

On September 9, 2020, the California Energy Commission (CEC) conducted a public hearing to consider the Committee Proposed Decision on the application for a small power plant exemption (SPPE) submitted by C1-Santa Clara, LLC (Applicant) for the Sequoia Backup Generating Facility. During the public comment period, both the California Air Resources Board (CARB) and the Bay Area Air Quality Management District (BAAQMD) offered comments on the Committee Proposed Decision. Mr. Craig Segall the assistant chief counsel appeared for the California Air Resources Board. Mr. Segall expressed concerns about the hundreds of megawatts of diesel engines under review with associated cumulative air pollution effects. He stated,

“Recent events underscore the need for analyses to ensure that backup generators are as clean as possible. The backup power systems are being called upon more frequently due to public safety power shutoffs and for load managements to avoid blackouts.”
“CARB has technical concerns related to the analysis of these data centers, including Sequoia as to potential avoidable adverse environmental effects they may cause. We believe if CARB’s technical concerns were addressed, the CEC analysis would require stronger public health protections such as improved pollution control technologies..... **“Before data centers are approved by this Commission, including Sequoia, CARB urges the CEC staff work with CARB, interested air districts, and other stakeholders to fully explore this issue.”**¹

¹ <https://efiling.energy.ca.gov/Lists/DocketLog.aspx?doctnumber=19-SPPE-03> Transcript of Item 13 from the September 9, 2020 California Energy Commission business meeting. Page 19 Line 9 to Page 20 Line 25

Mr. Henry Hilken of the Bay Area Air Quality Management district also appeared at the September 9th hearing. Mr. Hilken also appeared as a witness at the June 5, 2020 evidentiary hearing for the Sequoia Data Center supporting the letter BAAQMD submitted in response to the IS/MND proposed by CEC Staff.² At the September 9 business meeting Mr. Hilken stated concerns about over 1,500 megawatts of diesel backup generation proposed in the air district much in the environmental justice communities and climate change concerns. At the September 9 business meeting he stated:

“So we’re joining you today to express our concerns about the continued dramatic growth in diesel combustion for backup power at data centers. We’re -- we’ve been tracking this pretty closely. There are many projects here in the Bay Area, we’re aware of at least 15 projects that total over 1500 megawatts. Not all of these are subject to CEC authority, of course. But collectively, that’s -- that’s a lot of projects. 1½ gigawatts of power diesel, fossil diesel powered generation proposed here in the Bay Area. So cumulatively, this is a very significant increase in diesel combustion in our region. And so we really have -- we have air quality and health concerns and we have climate concerns.

This Sequoia project that you’re considering today and many of the other recent projects are in impacted communities down at Santa Clara County under our community health protection program. And our goals there are in these impacted communities to drive down emissions as quickly as we can. And so any increase in toxic diesel emissions in these communities is very concerning.

And certainly with respect to climate, I think we just have to look out the window today, we’ve seen ample evidence of climate forced wildfires that

² Mr. Hilken testified as follows at the evidentiary hearing

“There’s a lot of other technologies that exist right now that could replace diesel generators; isn’t that correct?”

MR. HILKEN: Yes.

MR. SARVEY: And they would have far less impacts than the diesel generators; would that be your opinion?

MR. HILKEN: There are greener alternatives out there, yes, hydrogen fuel cells, renewable diesel. Yes, there are other alternatives to fossil-diesel generators.

MR. SARVEY: And is that your main concern with the -- this project, is to eliminate the use of backup diesel generators?

MR. HILKEN: I think our main concern is the use of the fossil fuel-diesel backup generators. Page 80 lines 15-25 and Page 81 Lines 1-5

are plaguing us. You know, for the fourth year running now, we've seen historic air pollution from climate prompted wildfires in Northern California. So clearly, we have a climate crisis that we're grappling with today.

After hearing the comments from BAAQMD and CARB the full Commission adjourned to closed session. After emerging from closed session, the commissioners adopted a motion to remand the proceedings back to the Committee to consider air quality and public health impacts in light of the recent energy emergencies.

The remand is proper as the air quality analysis is incomplete.

The Air Resources Board submitted detailed comments on the IS/MND air quality analysis and expressed its concerns on the cumulative impacts of the many data centers the CEC is permitting.

On October 15 ,2020 the Air Resources Board submitted further comments on the air quality analysis for the Sequoia Data Center detailing their issues presented at the September 9 business meeting. One of CARB's main concerns detailed in its October 15 letter stated, *"it would be appropriate to consider ambient air quality impacts of multiple data centers—not just multiple generators—because the CEC is currently considering several projects in the same area. The impacts from the operation of the backup generators at these other constructed and/or proposed data centers located in the general project area should be included in the ambient air quality analysis for the proposed project to determine the cumulative impacts. Including these other data centers in the analysis is important given that it is unlikely the impacts from these other projects are properly accounted for in the background ambient data."*³

These concerns were issues raised by the committee in this proceeding and also the Walsh Data Center proceeding.

³ TN 235271 California Air Resources Board Comments - CARB Comments on Air Quality Analysis Page 5 and 6

The Sequoia Data Center and the Walsh Data Center share the same committee of Karen Douglas and Patricia Monahan. On August 29, 2019 the committee for the Walsh Data Center held a status conference for the application. At that conference the committee expressed an interest in the cumulative air impact analysis of the project in conjunction with other data centers on the SVP South Loop. As the Committee stated at the August 29 status conference for the Walsh Data Center:

“A further area is cumulative impacts. What projects have been previously approved or are under construction that are being used for the cumulative impacts analysis? For example, in Walsh, is Walsh on the same loop as say SC-1, McLaren, and Laurelwood, for determining cumulative impact for reliability? Similarly, this would also impact air quality. And I know that there were several data requests that staff put forward about these types of issues in terms of cumulative impacts analysis, but we're also very interested in that. And air quality always raises to me then issues of public health and environmental justice. So again we're not looking for answers today, but we do expect to see some analysis and evidence to help us make an informed decision when it comes time for that.”⁴

In response to the committee's interest expressed at the August 29 Walsh status conference in a cumulative air quality impact assessment of data centers CEC Staff filed data requests set 11 through 14 in the Sequoia Data Center proceeding on September 13.⁵ Data request 14 staff requested a cumulative impact modeling analysis, including SDC, existing data centers collocated on the SVP 60-kV loop and those sources identified above.

On December 17, 2019 the committee for the Sequoia Data Center held a status conference and that committee also expressed interest in a cumulative impact assessment including the many data center projects the commission is considering.

Moving on to the broader issue of cumulative impacts, we are, of course, aware that the Energy Commission has approved or is considering approval of Small Power Plant Exemption for a number of data centers with backup general in relatively close proximity. And we, of course, need to consider whether those facilities contribute to a cumulatively considerable impact. The Committee will be expecting

⁴ 19-SPPE-02 Walsh Data Center TN 229861 Transcript of 08-29-2019 Committee Conference Page 30,31

⁵ TN 229737 Data Requests Set 1 September 13,2019

discussion and evidence on and testimony on the potential for the Sequoia Backup Generating Facility to operate at the same time as other facilities with backup generation, including but not limited to those permitted by the Energy Commission and if simultaneous operation is foreseeable or likely, whether this contributes to any potential cumulative impact, including on air quality and public health. Of course, that's only a facet of the cumulative impacts assessment but it's an important aspect⁶

Unfortunately, the cumulative impact assessment was never performed. As the proposed decision states, ***“On February 21, 2020, Mr. Sarvey filed a motion to compel the applicant to perform a cumulative impact analysis. His motion was opposed by Applicant and Staff. The Committee held a hearing on the motion on March 11, 2020. The Committee issued its “Order Denying Intervenor Robert Sarvey’s Motion to Compel” on March 20, 2020.”***⁷ It is appropriate, lawful, and necessary to remand the proceeding back to the committee for a full analysis of cumulative impacts from the CEC’s proposed approval of five new mega data centers.

Emergency operation of the diesel generators must be considered.

In this proceeding and others CEC Staff has advanced a theory that analyzing emergency operations is too speculative and therefore need not be performed. The Sequoia Data Center proposed decision states:

“Nonetheless, Mr. Sarvey argued that the IS/PMND fails to meet the requirements of CEQA because it did not analyze the potential impact to air quality from emergency operations.¹⁶³ Mr. Sarvey disagreed that such an analysis is too speculative, pointing out that a similar analysis was done for the Laurelwood Data Center by CEC Staff, and for the Santa Clara Data Center by BAAQMD.¹⁶⁴ He also included an exhibit which he states is an analysis of emergency operations of diesel generators in Washington State.¹⁶⁵ However, we find that the fact that a modeling analysis was performed for other emergency generators does not mean that such an analysis would yield useful information in this case.”

⁶ TN 232007 Transcript of Committee Conference 12-17-19 Page 42 of 56

⁷ Sequoia Proposed Decision Page 9

The Air Resources Board in its October 15 letter disagrees with the proposed decisions conclusion that emergency operations are speculative. The October 15 letter from CARB states:

“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. CEQA requires an appropriate evaluation even of foreseeable impacts otherwise imprecise in scope or contingent in occurrence.⁸ Modeling at least some impact from simultaneous operation of the backup generators is no more speculative than assuming no hours of simultaneous operation or even in modeling the permitted 50 hours annually of operation for maintenance, which requires a similar degree of CEC making reasonable assumptions.⁹..... Such analysis becomes even more important when one considers, as discussed above, how close to the NO₂ standards the proposed project is with just one backup generator running for maintenance purposes—and thus the likelihood of significant short-term ambient air quality impacts associated with the simultaneous operation of multiple backup diesel generators.¹⁰... ..Consequently, 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.¹¹

NOx Offsets do not mitigate the projects air quality impacts.

Another error in the proposed decision concludes that NOx offsets somehow mitigate the projects NOx emissions. As stated in the proposed decision:

Moreover, Mr. Sarvey specifically pointed to diesel particulates and NOx as emissions of concerns,¹⁵² but did not address the fact that the Project will be providing NOx offsets, resulting in a net decrease in NOx emissions¹⁵³ and that BAAQMD’s monitoring data indicates that PM_{2.5} levels in the Project area have been trending downward since 2013.¹⁵⁴ The evidence in

⁸ TN 235271 California Air Resources Board Comments - CARB Comments on Air Quality Analysis Page 6

⁹ TN 235271 California Air Resources Board Comments - CARB Comments on Air Quality Analysis Page 8

¹⁰ TN 235271 California Air Resources Board Comments - CARB Comments on Air Quality Analysis Page 8

¹¹ TN 235271 California Air Resources Board Comments - CARB Comments on Air Quality Analysis Page 9

the record supports a conclusion that that use of the BAAQMD Thresholds identified in the 2017 BAAQMD Guidelines is sufficient for addressing cumulative impacts of the Project's criteria pollutant emissions. In reliance on the BAAQMD Thresholds, we find there are no significant cumulative impacts from criteria pollutants related to routine emissions.¹²

The CARB October 15 letter provides guidance on the reliance on NOx offsets to mitigate the projects NOx emissions. The October 15 CARB letter states:

While there is some question as to whether the NOx emission offsets shown above are being used as a CEQA mitigation measure, it is clear that the NOx emission offsets are being treated as negative emissions and used to reduce the proposed project's emissions below CEQA significance levels. But the community will not experience simultaneous benefits from these offsets during operations—which is the key issue here. Emission offsets are based on emission reductions that have occurred many years prior to the review/permitting of a new project in question. Therefore, the emission reductions associated with emission offsets are not concurrent with the emission increases for the project under review. In addition to this obvious timing issue, emission offsets are not re-evaluated at the time of use to ensure that they continue to represent real surplus emission reductions for the area in question (i.e., emission reductions beyond those required by current air quality regulations). Furthermore, emission offsets oftentimes are based on emission reductions that have occurred at facilities located far from where a new project is being proposed. Given these shortcomings, it is inappropriate to use NOx emission offsets as a concurrent emission reduction to keep the proposed project's emissions below CEQA significance levels.¹³

The projects operation will exceed the State and Federal NO2 standards.

The Sequoia PD states that, *“Mr. Sarvey further stated that emergency operation will create emissions that “will surely” exceed state and federal NO2 standards.¹⁷¹ He contended that, when multiple Backup Generators run, the state and federal NO2 standards “will surely” be violated. He based this argument on the modeling Staff*

¹² Sequoia Proposed Decision Page 22,23

¹³ TN 235271 California Air Resources Board Comments - CARB Comments on Air Quality Analysis Page 9 -11

*performed to evaluate routine operations that identified a total NO₂ impact of within 1 percent of the federal one-hour standard and 2 percent of the state one-hour standard.....As a result, we find that Mr. Sarvey's speculation is, not supported by the evidence in the record.*¹⁴ The Air Resources Board completely disagrees with the PD's conclusions and notes that operation of even 1 diesel generator has the potential to violate Federal and State NO₂ standards. As CARB's October 15 letter states,

"The operation of one generator likely violates the standards if the modeling uses more appropriate model inputs. CARB believes modelling inputs need to be adjusted to reflect best modelling practices. Appropriate modeling assumptions—including the assumed partial load NO_x emission rate, exhaust NO₂/NO_x ratio, modeling receptor spacing, type of ozone limiting method used, hourly meteorological missing data procedures used, and fence-line modeling receptor locations—result in higher impacts and potential NO₂ standard exceedances from only one backup diesel generator operating.¹⁵..... As there are fifty-four generators in this project, exceedance concerns become even more acute. Because one generator appears to cause violations, operating multiple generators almost certainly would lead to further exceedances."¹⁶

A remand is proper since conditions have changed since the IS/MND was issued.

Sequoia Data Center CEC Staff issued the Initial Study /Mitigated Negative Declaration on January 23, 2020. Since that time the baseline which the project was analyzed under has changed. The coronavirus has changed the way people live, use data, and consume energy. Extreme heat has caused stress on the grid requiring the first rolling blackouts since 2001. The extreme heat caused operation of 100 MW of data center backup generators including another 12 MW curtailed of data center generators curtailed by CAISO. California is experiencing the worst fire season in history impacting

¹⁴ Sequoia PD Page 26,27

¹⁵ TN 235271 California Air Resources Board Comments - CARB Comments on Air Quality Analysis Page 4

¹⁶ TN 235271 California Air Resources Board Comments - CARB Comments on Air Quality Analysis Page 5

air quality. The poor air quality resulting from the fires caused BAAQMD to declare a record 30 straight spare the air days in 2020.

The California Air Resources Board appeared at the Sequoia PD adoption hearing and also provided detailed comments on CEC Staff's analysis on October 15.¹⁷ CARB has described the flaws in CEC Staff's analysis and how they affect the conclusions in the proposed decision. CARB has stated that emergency operations of the diesel generators are not speculative and should be modeled.¹⁸ CARB has stated that a cumulative analysis covering the many data centers the CEC is permitting should be performed.¹⁹ The Air Resources Board has commented that the BAAQMD significance levels do not excuse a proper cumulative analysis of the project.

The Air Resources Board has pointed to flaws in the NO₂ modeling for the project and has determined that the operation of just one engine could violate the California NO₂ standard.²⁰

As a result of these issues CEC staff is now proposing utilizing EIR's instead of IS/MND's to analyze the remaining data centers impacts. In the San Jose Data Center proceeding according to CEC Staff's latest status report it states:

"Since staff filed Status Report #6 on September 15, 2020, staff has continued to meet with the applicant, City of San Jose, the Bay Area Air Quality Management District (BAAQMD), and the California Air Resources board (CARB) to ensure a complete Environmental Impact Report is developed that includes City- and BAAQMD-specific details. To comply with CEQA procedural requirements, staff is also drafting the Notice of Preparation of an Environmental Impact Report for the project."²¹

In the Great Oaks South Data Center proceeding CEC Staff just issued a notice of preparation of an EIR.²² The Committee order authorizing CEC Staff to prepare an

¹⁷ TN 235271 CARB Comments on Air Quality Analysis.

¹⁸ CARB's comments support existing evidence in the record on emergency operations, see Exhibit 303 Page 5, Exhibit 300 Page 15, Exhibit 304

¹⁹ CARB's Comments support existing record evidence see Exhibit 303 Pages 9-14

²⁰ Exhibit 300 page 15, Exhibit 303 Page 7

²¹ TN 235258 [STATUS REPORT #7 FOR THE SAN JOSE CITY DATA CENTER SMALL POWER PLANT EXEMPTION \(19-SPPE-04\)](#)

²² TN 235414

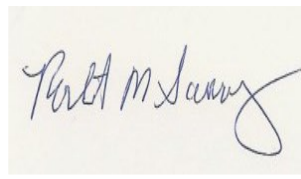
EIR stated that CARB and BAAQMD's concerns necessitated CEC Staff to prepare and EIR. As the order stated:

Here, Staff's intent to conduct the more thorough analyses required under an EIR are appropriate given that CARB and BAAQMD—two agencies with expertise in air quality and public health modeling, analysis, and impacts—have expressed concerns that Staff's analyses and modeling might not fully identify potential significant air quality and public health impacts. In addition, an EIR would help better inform the public, including residents who have expressed significant interest in the project, and allow the CEC to consider alternatives to the proposed diesel-fired backup generators. Thus, given the totality of the circumstances in this case, we agree that an EIR would best meet the purposes of CEQA, and decline Applicant's request to direct Staff to prepare an IS/MND.²³

Conclusion

CARB has identified areas of Staff's analyses and modeling that do not fully identify potential significant air quality and public health impacts. The proposed decision relies on staff's analyses to find that no substantial adverse impact on the environment will result from the construction or operation of the Sequoia Data Center. A remand is appropriate to identify any significant adverse impacts and fully mitigate them.

Respectfully submitted,

A rectangular box containing a handwritten signature in blue ink, which appears to read "Robert M. Sarvey".

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²³ 20-SPPE-01 TN 235275 [COMMITTEE SCHEDULING ORDER AND RELATED ORDERS](#)

