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State Energy Resources Conservation and
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**APPLICATION FOR SMALL POWER PLANT
EXEMPTION FOR THE:**

***MISSION COLLEGE BACKUP
GENERATING FACILITY***

Docket No. 19-SPPE-05

ENERGY COMMISSION STAFF'S BRIEF

At the conclusion of the evidentiary hearing on the Mission College Backup Generating Facility (MCBGF) Small Power Plant Exemption, the Committee overseeing the proceeding stated that parties may submit briefs within seven business days of the hearing transcript posting. On June 24, 2020, the Committee issued a memorandum confirming that the deadline for briefs is June 30, 2020. The Committee did not indicate any particular issues in controversy that it believes would need to be addressed in briefing. As stated in the prehearing conference statements, there were no disagreements between CEC staff and the project applicant. The only disagreements identified were raised by intervenor Robert Sarvey in various areas.

Staff believes the evidentiary record is clear in these areas and repeating here the analyses and conclusions, and legal bases therefor, would not be of any added help, with one exception. Given the complicated and quickly evolving legal landscape involving greenhouse gas (GHG) emissions, a discussion related to the project's GHG emissions and the California Environmental Quality Act (CEQA) requirements under which staff analyzed them, with specific attention to how Silicon Valley Power's (SVP) Integrated Resource Plan (IRP), the requirements of Senate Bill (SB) 350, and California's Cap-and-Trade program factored into that analysis, could prove helpful to

the Committee in its consideration of the matter. The following is staff's post-hearing brief on this issue.

I. INTRODUCTION

The MCBGF and Mission College Data Center (together referred to hereafter as *the project*) would produce GHG emissions in several different ways, each requiring its own distinct analysis: direct emissions from construction, direct emissions from testing and maintenance of the backup generators, and indirect emissions from the data center portion's use of electricity and other building operations including water and waste, and mobile sources from vehicles associated with the project.

CEQA Guidelines section 15064.4 provides the most guidance on how to analyze a project's GHG emissions. Subdivision (a) directs lead agencies to make a good faith effort in analyzing impacts and allows for either the quantification of emissions and/or a qualitative analysis or performance-based standards. Staff chose to use both approaches where feasible.

Innumerable relevant plans and guidelines have been adopted to regulate the emission of GHGs and to facilitate their evaluation under CEQA. (Ex. 200, pp. 5.8-2 through 7.) Two regional plans are particularly pertinent: the Bay Area Air Quality Management District's (BAAQMD) 2017 CEQA Guidelines¹ and the Santa Clara Climate Action Plan.² BAAQMD's 2017 CEQA Guidelines provide a good starting point for the GHG analysis where other, more current, mechanisms for determining significance are not available. This is true for the construction emission and stationary source analyses. While BAAQMD is working on updating its CEQA Guidelines to address 2030 GHG goals, such

¹ Bay Area Air Quality Management District (BAAQMD). California Environmental Quality Act, Air Quality Guidelines. Updated May 2017. Accessed March 2020. Available online at: https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en

² Santa Clara Climate Action Plan. Adopted December 2013. Available online at: <https://www.santaclaraca.gov/home/showdocument?id=10170>

updated guidance is not currently available. Staff has concluded that the thresholds identified in the 2017 Guidelines for construction and stationary source emissions are appropriate to use absent any superseding guidance. (Ex. 200, pp. 5.3-17 through 21; 5.20-6 through 7.)

Santa Clara's Climate Action Plan also provides a good starting point to determine whether the project has incorporated into its design what the city itself has identified as important measures for reducing GHG emissions.³ (Ex. 200, pp. 5.8-5 through 6.) And while these measures alone are necessary but not sufficient⁴ to show compliance with future GHG goals, they do provide a basis for determining whether current requirements are being met.

II. THE PROJECT'S GHG EMISSIONS FROM CONSTRUCTION WOULD BE LESS THAN SIGNIFICANT

The project is anticipated to emit 1,231 metric tons of carbon dioxide equivalent (MTCO₂e) during the 25-month demolition and construction period.⁵ (Transcript,⁶ p. 69: 12-14.) BAAQMD does not identify a numerical emissions threshold for analyzing a project's construction emissions, but relies on the use of best management practices. (Ex. 200, p. 5.8-9.) The vehicles used during demolition and construction of the project are required to comply with the applicable GHG reduction programs for mobile sources and would adopt BAAQMD best management practices and 50% of the project's

³ If this were a few years ago, conceivably the CEC could tier from the City's Climate Action Plan under title 14, California Code of Regulations, section 15183.5. The City, however, has stated that given the plan's focus on 2020 goals (even though 2035 reach goals are also identified), the document cannot be used to tier from for projects that will be completed after 2020. (Response to Comments on the McLaren Data Center Project Initial Study/Mitigated Negative Declaration, City of Santa Clara, p. 3

[<https://www.santaclaraca.gov/home/showdocument?id=51500>] [concluding, however, that "consistency with the CAP framework is still a relevant consideration in the analysis of the project's GHG impacts because many of the policies will be carried forward by the City to address post-2020 emissions in its next CAP update."]) Given that there are no other plans meeting the requirements of section 15183.5 from which to tier, staff has focused on the requirements in section 15064.4 for the analysis.

⁴ One could surmise that the next iteration of the City's Climate Action Plan would use its current requirements as a baseline and introduce additional measures to ensure a ratcheting down of emissions.

⁵ According to the applicant, demolition has already begun under a previous City permit. (Transcript p. 53: 7-12.)

⁶ Transcript of June 15, 2020 Evidentiary Hearing. TN 233540. All references to "Transcript" refer to this document.

construction wastes will be recycled or diverted. (Ex. 200, pp. 5.8-13, -15; Transcript, p. 69:19-23.) Staff concluded, therefore that the project's construction emissions would be less than significant. No evidence or testimony was provided to contradict this conclusion or the facts upon which it relies.

III. THE PROJECT'S GHG EMISSIONS FROM TESTING AND MAINTENANCE OF THE BACKUP GENERATORS WOULD BE LESS THAN SIGNIFICANT

In a worst-case scenario, the project is expected to result in the emission of 3,875 MTCO₂e/year of GHGs from testing and maintenance of the backup generators. This assumes that each generator will run 50 hours a year at 100% load, which is an extremely conservative assumption. In reality, staff expects the generators to be run less than 12 hours per year. (Transcript, p. 73: 13-18.) Under BAAQMD rules, the backup generators constitute a stationary source. (2017 BAAQMD CEQA Guidelines, p. 5-2.) The BAAQMD threshold for stationary sources is 10,000 MTCO₂e/year. (Ex. 200, p. 5.8-8 through 9.) The project clearly would fall well below this threshold. Staff believes it is appropriate to use this threshold even though BAAQMD is working on updating it to address 2030 goals and beyond.

As an initial matter, these thresholds are advisory, not mandatory, and it is up to the lead agency to determine the appropriateness of a threshold to its own review. (2017 BAAQMD CEQA Guidelines, p. 1-1.) Absent adopting a position that any addition of GHG emissions is a significant impact requiring mitigation, which staff does not believe is reasonable or supported by the evidence, staff believes the current BAAQMD threshold presents a reasonable point to evaluate whether a project would have a less than significant impact. (Ex. 200, p. 5.8-8.) BAAQMD has not indicated what it is considering to replace this threshold, or when such a replacement will be identified. Even if the district is considering a drastically reduced threshold going forward, it is reasonable to posit that this project would likely meet such a threshold given how conservative the estimation of emissions is and how far below the current standard even this conservative number falls. Nevertheless, the analysis should focus on what is currently

in effect, and staff could find no other threshold that was more reasonable to apply than BAAQMD's current threshold for stationary sources. Mr. Sarvey suggests using BAAQMD's 1,100 MTCO₂e/year threshold, but that is clearly applicable only to land use development projects that are not stationary sources. (2017 BAAQMD CEQA Guidelines, p. 2-4.) The BAAQMD CEQA guidance is clear that stationary source emissions should be evaluated separately, and the 1,100 limit is not intended to apply to stationary sources.⁷

Mr. Sarvey also suggests that the California Air Resources Board (CARB) has established a threshold of 7,000 MTCO₂e/year for industrial source non-transportation operational emissions and that this limit should be used. (Transcript, p. 44: 20-22.) To support this assertion, he introduced a staff-level CARB PowerPoint presentation from 2008. But as the PowerPoint itself states, this draft recommendation was merely interim, and in the 12 years that have transpired since it was proposed, staff argues that it has clearly been supplanted by the numerous statewide statutes and regulations that have since been implemented to deal with GHG emissions, as reflected in the much more recent and authoritative CARB Resolution 18-26. (Ex. 18.) In any case, the project's stationary sources of emissions are below the suggested 7,000 MTCO₂e/year threshold.

Lastly, Mr. Sarvey suggests that the district's Diesel Free in 33 program⁸ establishes clear requirements prohibiting the use of petroleum-derived diesel fuel, and, therefore, it should be considered a threshold of sorts requiring the project to use an alternative fuel to reduce its emissions. That document, however, has not been adopted by BAAQMD as a threshold of significance for analyzing GHG emissions and, while the goals expressed therein are certainly aspirational, the record is clear that alternatives to diesel backup generators at the scale and reliability needed by this project are currently unavailable. (Ex. 200, p. 5.6-6; Ex. 201, pp. 7-9.)

⁷ BAAQMD CEQA Guidelines, p. 4-5, ["The GHG emissions from permitted stationary sources should be calculated separately from a project's operational emissions."]

⁸ See ex. 15.

IV. THE PROJECT'S GHG EMISSIONS FROM OPERATION OF THE DATA CENTER WOULD BE LESS THAN SIGNIFICANT

a. Legal Framework for Analysis of Operational GHG Impacts

As discussed further below, the vast majority of the project's operational emissions are indirect and related to its electricity use. To provide a legal framework for this analysis, CEQA guidelines, section 15064.4(b)(3) provides the most relevant guidance on how lead agencies should assess the project's operational emissions in this context.

A lead agency should consider the following factors, among others, when determining the significance of impacts from greenhouse gas emissions on the environment:

(3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions (see, e.g., section 15183.5(b)). Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions.

b. The Project's Anticipated Emissions

The project's operation would result in GHG emissions from mobile sources associated with the project (employees, tenants, deliveries, etc.), from the water and waste associated with the project (these combined with mobile source emissions would total 2,663 MTCO₂e/year), and indirectly from the project's use of electricity. It is important to note that the project has been designed to meet all of the requirements for such a facility identified in the City of Santa Clara's Climate Action Plan (CAP). (Ex. 1, pp. 117-119.)

With regard to mobile source emissions, the project has a low concentration of employment and would not contribute to a substantial increase in passenger vehicle travel within the region. (Ex. 200, p. 5.8-16.)

The building itself will result in indirect emissions from electricity supplied by SVP to the grid. The applicant has designed the building to minimize electricity use where possible. For instance, the building has been designed to efficiently use energy, with a Power Usage Effectiveness (PUE) of 1.11, lower than the CAP's goal of 1.2 for projects with a higher rack rating. (Ex. 201, p. 5.8-14.) The building also would include lighting controls and air economization to reduce direct electricity use and water efficient landscaping and ultra-low flow plumbing fixtures to reduce electricity use associated with water conveyance. (Ex. 200, p. 5.8-16.) The project applicant has stated that it will also adopt additional energy efficient design measures in coordination with the city when it goes through its design review process. (Ex. 201, p. 3.) Additionally, the project owner would purchase Santa Clara Green Power for its own use, and would encourage its tenant(s) to do so for their electricity needs as well. (Ex. 201, p. 3.)

c. Statewide Electricity Sector GHG Reduction Goals

As a whole, the electricity sector has been steadily reducing GHG emissions and increasing the use of renewable energy starting with the first renewable portfolio standard (RPS) bill, Senate Bill (SB) 1078, passed in 2002. Since that time the required renewable energy percentage has increased from 20% by 2017 (SB 1078) to 60% by 2030 (SB 100). GHG emissions from the electricity sector have also been targeted as well with the passage of Assembly Bill (AB) 32 in 2006, mandating the state reach 1990 levels of GHG emissions by 2020. SB 32 expanded the target to 40% below 1990 levels by 2030. In 2018, SB 100 established the goal of the electricity sector being 100% carbon free by 2045.

To support the meeting of these targets, AB 32 tasked CARB with developing a market-based system to reduce GHG emissions from major sectors of the economy, including the electricity sector. (Cal. Code Regs., tit. 17, §§ 95811(b) and 95812(c).) The cap and trade program is the primary market-based program used to drive down the state's GHG emissions from multiple sectors of the economy. (Cal. Code Regs., tit. 17, § 95801.)

For the electricity sector, the obligation to be under the cap is on the operator of an in-state power plant that emits 25,000 metric tons or more of CO₂ per year, or the importer for out of state generation. (Cal. Code Regs., tit. 17, §§ 95811(b) and 95812(c).) In addition to capping the emissions from electricity generation by a power plant, these caps also apply to a utility's purchase of energy from the spot market and other electricity suppliers. (Transcript, p. 24: 3-11.) The cap and trade program, therefore, is one tool to achieve the statewide GHG emissions cap through the allocation and purchase of emission allowances. (Cal. Code Regs., tit. 17, § 95841.)

Beyond the cap and trade program, additional state laws focusing on GHGs and renewable energy apply specifically to utilities such as SVP. Two key laws that complement CARB's cap and trade program include SB 350 and SB 100. SB 350 creates a requirement for publicly owned utilities like SVP to map out how the utility will meet their expected load, reliability, RPS, and GHG emission reduction requirements through the development of an Integrated Resources Plan (IRP) that sets forth, among other things, how SVP will reduce GHG emissions below specific levels set by CARB. (Ex. 302, pp. 1-1, 2-7, 2-14 to 2-18.)

The salient mandates of SB 350 relevant to SVP and its GHG emissions are found in Public Utilities Code section 9621(b).

(b) On or before January 1, 2019, the governing board of a local publicly owned electric utility shall adopt an integrated resource plan and a process for updating the plan at least once every five years to ensure the utility achieves all of the following:

(1) Meets the greenhouse gas emissions reduction targets established by the State Air Resources Board, in coordination with the [public utilities] commission and the Energy Commission, for the electricity sector and each local publicly owned electric utility that reflect the electricity sector's percentage in achieving the economy wide greenhouse gas emissions reductions of 40 percent from 1990 levels by 2030.

Under Public Utilities Code section 9622 the CEC is tasked with reviewing the IRP to determine if the plan is consistent with the requirements of section 9621 and making recommendations to correct deficiencies. Embedded in the SB 350 IRP process is an initial step where CARB determines the 2030 GHG emissions for SVP and other utilities. (Ex. 302, table 2-2 and p. 2-15.)

SVP's 2019 IRP indicates that its 2030 GHG targets, as set forth by CARB, ranges from 275,000 MTCO₂e to 485,000 MTCO₂e, which is 0.915% of the 2030 electricity sector emissions. (Ex. 302, table 2-3.) SVP's IRP sets the roadmap on achieving both the GHG requirements and 60% renewable energy by 2030. (Ex. 302, tables 2-4, 8-5 and 8-6.)

After SB 350 went into effect, SB 100 was signed into law and accelerated targets by raising the 2030 RPS from 50% to 60% and adding the goal of 100% carbon free electricity by 2045. SVP's IRP incorporated the SB 100 targets. (Ex. 302, p. 1-7.)

d. Analysis of the Project's Indirect Emissions from Electricity Use

The Mission College project's indirect emissions from energy use are not significant because SVP, through cap and trade and future procurement of renewable and zero- or low-carbon energy, is set to meet all statewide GHG and renewable energy mandates which will drive the reduction of GHG emissions towards the targets of 2030 and 2045. (Transcript, p. 23: 2-25; p. 24: 1-11; and p. 28: 18-23.)

Theoretically, the project's GHG emissions attributable to electricity use could total 133,721 MTCO₂e/year; however, this is unlikely to ever be even close to actual emissions. This number assumes SVP's carbon intensity factor is 430 pounds CO₂e per megawatt hour, when, as the record shows, the number is currently much lower than that and will continue to decline. (Ex. 201, p. 5.) This number also assumes the project will operate at 100% of its capacity, when, as the record shows, data center projects routinely operate only within 40-75% of their maximum capacity. (Transcript, p. 28: 12-17; Ex. 201, p. 5.8-12.)

Also of note is the fact that this project is replacing a previously extant 253,000 square foot office/research & development building with its own GHG emissions associated with vehicle trips and electricity and natural gas use that will be supplanted. (Ex. 1, p. 112.)

And it should not go without notice that the City of Santa Clara, in its own Mitigated Negative Declaration conducted on a minimally different variation of this project, concluded itself that the GHG emissions impacts would be less than significant, for some of the same reasons staff recommends here. (Ex. 2, p. 70.) And while the city's conclusion was reached two years ago, it is unreasonable to find that a long-term potential impact jumps from less than significant to significant with no significant change in project emissions, simply because, having met 2020 GHG goals, entities are now turning their attention to 2030 and beyond.

The CEQA Guidelines explicitly call on lead agencies to evaluate compliance with "regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions," and staff's emphasis on programs that reduce emissions from SVP's portfolio of energy procurement is methodologically appropriate given the nature of this project's emissions as predominantly indirect and tied to electricity usage. (Cal. Code Regs., tit. 20, § 15064.4(b)(3).)

An agency may conclude a project's GHG emissions are less than significant if those emissions are covered by the state's cap and trade program, or any other program that sets limits on an industry as a whole. In *Association of Irrigated Residents v. Kern County Board of Supervisors*, (2017) 17 Cal.App.5th 708, the court found that "the cap-and-trade program consists of 'regulations ... adopted to implement a statewide ... plan for the reduction or mitigation of greenhouse gas emissions' as that phrase is used in Guidelines section 15064.4, subdivision (b)(3)." *Ass'n of Irrigated Residents v. Kern Cty. Bd. of Supervisors* (2017) 17 Cal.App.5th 708, 734 [AIR]. The court held that Kern County's analysis of GHG impacts correctly relied on the cap and trade program, to which the refinery at issue was subject, to conclude that the project's impacts would be less than significant. But the court's decision also goes further than that. The court

found that “an inquiry into significance that is based on compliance with a program that sets limits on [an industry] as a whole is a rational approach to regulating that industry’s contribution to global climate change.” (*Id.* at 743.) Thus, it is not just the presence of the cap and trade program, but any program that would set a limit on the industry at issue. Because the emissions here are indirect, the industry that is the subject of this analysis is the electricity industry.

The court’s analysis also confirms that CEQA does not create a one-molecule rule for GHG emissions, requiring a significance determination whenever additional emissions are shown to occur. Instead, CEQA is intended to accommodate and allow for population growth as part of an agency’s analysis. (*Id.* at 743. [“CEQA is not intended as a population control measure.”]) As with the court’s finding that the modification of the refinery at issue was “designed to accommodate long-term growth in California’s population and economic activity that expresses itself in increased demand for petroleum products”, so too is the increased demand for data centers and the electricity industry a result of this population growth, and the court’s conclusion that “this increased demand will exist whether or not the project is approved” is equally true here. (*Id.* at 742-43.) Given goals of SB 350 and SB 100, it can be expected that the additional demand from the project on the SVP system will be met by carbon free power. (Transcript, p. 17-25; p. 23: 1-16; and p. 28: 18-23.)

In *AIR*, the court evaluated Kern County’s Environmental Impact Report (EIR) for a refinery’s permit. The EIR found that the project’s emissions would be below the air district’s emissions reduction target through various efforts, including the state’s cap and trade program. (*Id.* at 737.) The court determined that “Guidelines section 15064.4, subdivision (b)(3) directed County to consider the project’s compliance with the cap-and-trade program in assessing the significance of environmental impacts from the project’s greenhouse gas emissions.” (*Id.* at 741-742.) The court focused on cap and trade because that was the only statewide measure that fell under section 15064.4 applicable to the industry at issue, refineries. As discussed above, there are several other measures in addition to cap and trade that apply to electricity generators. Staff

not only evaluated SVP's compliance with the statewide cap and trade program in determining that the emissions from the Mission College project would not prevent SVP from meeting its emissions reduction obligations, but also the other provisions applicable to the electricity sector, most importantly RPS. All of these provisions combined support the conclusion that the project's indirect emissions from electricity use would be less than significant.

In this case, there are no facts in the record demonstrating that SVP will not be able to meet its obligations relating to GHG emissions and the RPS. Future IRPs, approved by the CEC, will continue to detail SVP's pathway towards state GHG and RPS requirements of 2030 and beyond, and the CEC is equipped to pursue enforcement and corrective actions against SVP under the RPS enforcement program if future evidence suggests that the utility is slipping out of compliance with statewide procurement targets. (Cal. Code Regs., tit. 20, §§ 3200-3208.)

e. SVP's Efforts to Meet Its GHG Reduction Goals

SVP is on track to meet the requirements of AB 32, cap and trade, and SB 100 as over 70 percent of SVP's electricity is already carbon free. (Ex. 200, pp. 5.6-7, 5.8-10, 5.8-11, and 5.8-16 through 18.) SVP expects to be 100 percent carbon free by 2045 in compliance with the goals of SB 100. (Transcript, p. 22: 17-25; p. 23: 1-16; and p. 28: 18-23.)

SVP's IRP, which was approved by the CEC and adopted by the City of Santa Clara, along with the testimony of SVP's Chief Operating Officer, Kevin Kolnowski, provides the substantial evidence that SVP will meet its GHG reduction requirements and that the Mission College project and other data centers will not inhibit the achievement of these targets. (Transcript, p. 22: 17-25; p. 23: 1-25; p. 24: 1-11; and p. 28: 18-23; Ex. 302, tables 2-4, 8-5 and 8-6.) Therefore, the incremental GHG emissions from the electricity usage by the Mission College project cannot be significant.

V. CONCLUSION

The project's direct emissions, stemming mainly from construction and testing and maintenance of the backup generators, fall well below the identified thresholds of significance. The rest of the GHG emissions from the project, indeed the vast majority, are indirect and related to the use of grid power. To determine if these emissions were significant, staff considered whether SVP is on track to meet its GHG and RPS 2030 and 2045 obligations under various state requirements. SB 350's IRP sets forth SVP's road map for meeting these obligations. The uncontested evidence in the record from the Initial Study and IRP to the testimony of Mr. Kevin Kolnowski demonstrates that SVP is on target to meet state GHG targets and will be in the range of GHG emissions by 2030 as set forth by CARB and the Mission College project's consumption of electricity from SVP will not prevent SVP from meeting its GHG emission targets under SB 350 and SB 100. Therefore, the Mission College project's GHG emissions would not cause an incremental contribution to the effects of climate change that can be considered significant, and staff's IS/PMND correctly determined these effects to be less than significant.

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Respectfully submitted,

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