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State of California
State Energy Resources Conservation and Development Commission

In the matter of:	
Walsh Data Center	Docket 19-SPPE-02

Helping Hand Tools (2HT) Comments on the Proposed Decision

Introduction

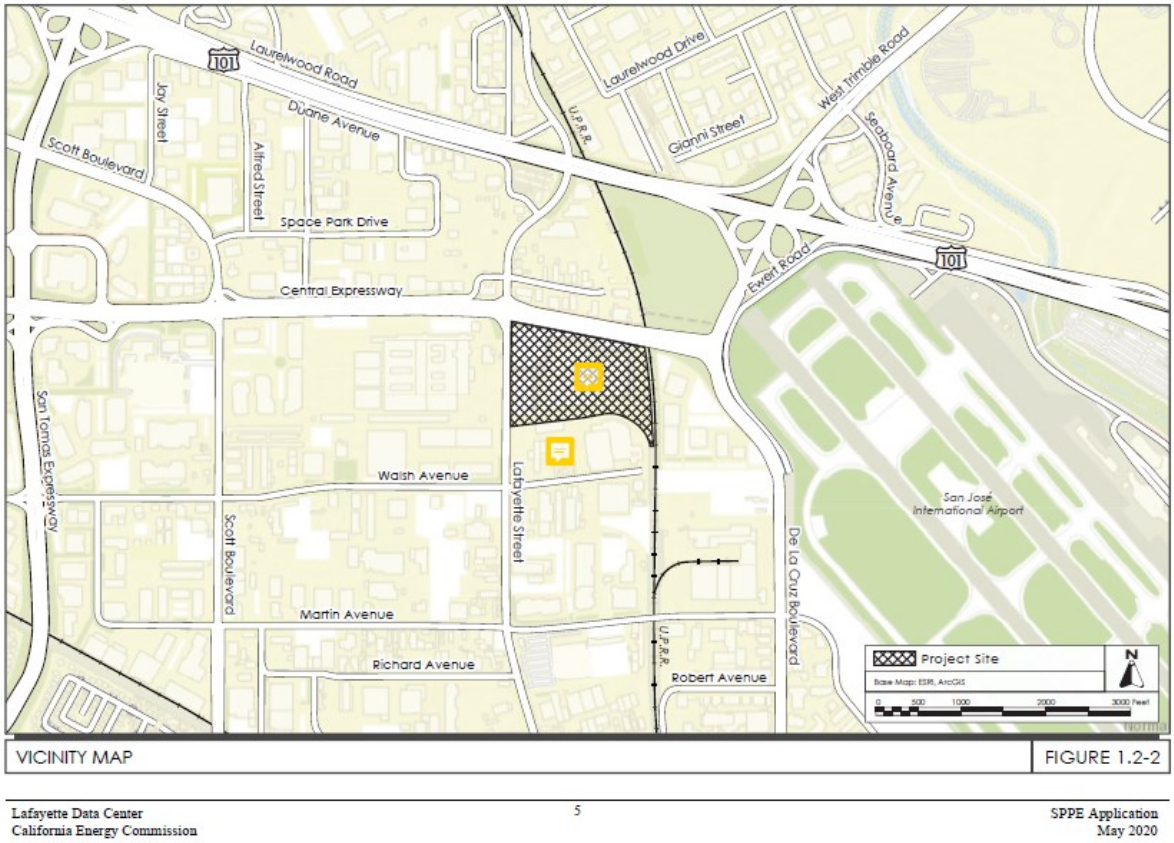
The proposed decision incorrectly concludes on page 10 that the project qualifies for a Small Power Plant Exemption because the project generating capacity is only 80 megawatts. The proposed decision believes that the "Diesel Free by 33" initiative addresses greenhouse gas emissions. The proposed decision is confused as the "Diesel Free by 33" initiative is designed to improve air quality and has no relation to GHG emissions as common sense and the evidence clearly illustrates. The Bay Area Air Quality Management District the agency whose CEQA guidelines the Energy Commission has used to evaluate the CEQA compliance for the project continues to urge the CEC to not allow the applicant to use diesel backup generators. There is no dispute that the project area where all these data centers are being sited is an environmental justice community already overburdened by diesel particulate and other pollution.

The entire air quality and public health analysis ignores the adjacent Lafayette Data Center also owned by Digital Realty. The analysis ignores the combined air quality and public health impacts from the simultaneous construction of both projects and the potential for operation of more than one diesel generator at a time.

The proposed decision incorrectly concludes on page 10 that the project qualifies for a Small Power Plant Exemption because the project generating capacity is only 80 megawatts.

Digital Realty is the proponent of the 80 MW Walsh Data center.[1] Digital Realty is also the owner of the 99 MW Lafayette Data Center which is located adjacent to the Walsh Data Center on the same block as depicted in the two maps extracted from the projects applications as shown below.

Lafayette Data Center 44 - 3 MW Diesel Generators



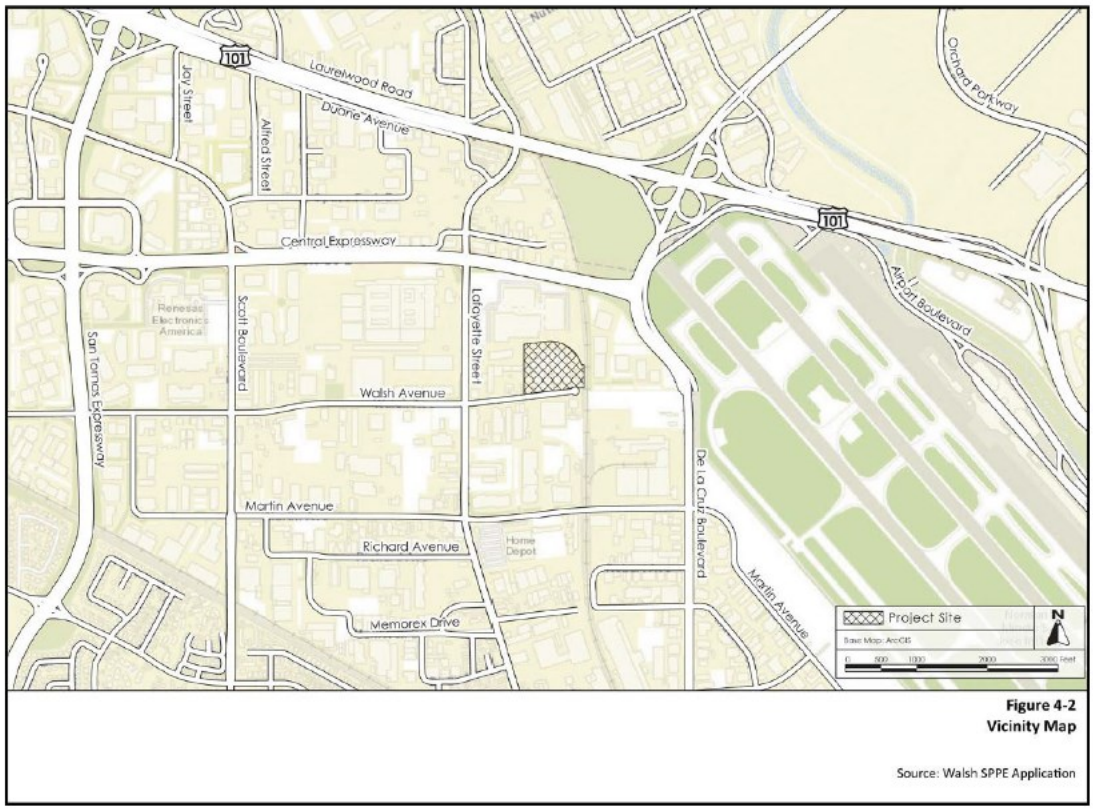
2

[1] TN 234026 Walsh Committee proposed Decision page 5 of 413 " 651 Walsh Partners, LLC, is managed by Digital Walsh Holding, LLC, which is a subsidiary of Digital Realty Trust, L.P. (Ex. 1, p. 1, fn. 1)"

[2] TN 233041-1 LBGF SPPE Application - Part 1 **Page 12 of 194**

Walsh Data Center 32 – 3 MW Generators

FIGURE 1
Walsh Backup Generating Facility Vicinity Map



3

Since both projects are owned or controlled by Digital Realty and located adjacent to each other with no intervening streets or parcels, and they are now part of a reasonably foreseeable plan of development, they constitute the same project. The combined generating capacity of the two projects is 179 MW which necessitates the applicant to file an Application for Certification. CEC Staff and the applicant were aware of both projects before the Walsh evidentiary hearing[4] but failed to provide the information to the Committee despite having the same CEC staff attorney and the same

[3] TN 234026 Walsh Committee Proposed Decision Page 8 of 413
[4] The Application of the Lafayette Backup Generating Station was filed on May 20, 2020 and the Walsh Evidentiary hearing was conducted on May 27, 2020.

CEC project manager and the same applicant attorney. This is hardly an oversight on the part of CEC Staff or the applicant. The proposed decision should be modified to state:

A. The Backup Generators Have a Combined Generating Capacity of ~~80~~ 170 MW

The Warren-Alquist Act defines a thermal powerplant as "any stationary or floating electrical generating facility using any source of thermal energy, with a generating capacity of 50 megawatts or more, and any facilities appurtenant thereto."[71]

~~The gross nameplate capacity of the 33 Backup Generators would be 98 MW[72]—below the 100 MW limit of section 25541.~~

~~Additionally, in the IS/PMND, Staff[73] calculated the maximum total Data Center load requirements attributable to the critical Information Technology (IT) load of the servers and server bays, the cooling load of the IT servers and bays, and the ancillary electrical and telecommunications equipment operating loads to support the data customers and campus. The IS/PMND concluded that the Data Center's total load would not exceed 80 MW, and the Project equipment would limit the capability of the Backup Generators to providing up to the 80 MW Data Center load.[74] Staff's conclusions were not contested.~~

~~Thus, we find that the Backup Generators have a generating capacity of less than 100 MW. To ensure that the 80 MW limitation based on Data Center load and analyzed in the IS/PMND will not be exceeded, we adopt Condition of Exemption PD-1 to read as follows:~~

~~**Condition of Exemption PD-1. Notice of Events Affecting Electrical Demand of the Facility.**~~
~~The granting of the Small Power Plant Exemption for the Walsh Backup Generating Facility is specifically conditioned on the existing configuration of the Walsh Data Center and that its demand for electricity does not exceed 80 MW. The Project Owner may not alter the configuration or equipment of the Walsh Data Center if the demand for electricity would then increase or if generation capacity would exceed 80 MW. If the Project Owner in the future desires to alter the configuration or equipment of the Walsh Data Center in a manner that may result in an increase in electrical demand, any such alteration, change, or modification shall be subject to the requirements set forth in the regulations of the CEC relating to changes in Project design, operation, or performance and amendments to Commission Decisions, as they may exist at that time.~~

~~We also adopt Condition of Exemption PD-2 to ensure that the electricity produced by the Backup Generators will be used only by the Data Center, thereby making the load limit of the Data Center the permanent restriction on generating capacity.~~

~~**Condition of Exemption PD-2. Notice of Events Affecting Off-Site Distribution of Energy Generated by the Facility.**~~

~~The granting of the Small Power Plant Exemption for the Walsh Backup Generating Facility is specifically conditioned on the power generated being used exclusively by the Walsh Data Center. At no time shall the owner of the Walsh Data Center allow the power to be generated by the Walsh Backup Generating Facility to be used for any other facility, property, or use, including, but not limited to, delivery to the electric distribution system without the express written approval of the CEC.~~

~~With the adoption and implementation of Conditions of Exemption PD-1 and PD-2, we find that the Project has been and will be limited to a maximum load of 80 MW and therefore the maximum generating capacity of the Backup Generators is less than 100~~

We find that the 80 MW Backup Generator capacity for the Walsh Data Center combined with the 99 MW Lafayette Data Center generating capacity center exceeds the 100 MW capacity required to qualify for an SPPE and therefore Digital Realty is required to file and AFC. We therefore **Deny** the SPPE.

The Diesel Free initiative has nothing to do with GHG emissions but is properly debated under public health concerns not GHG emissions. The language in the PD on pages 27 and 28 should be stricken as it makes the Energy Commission decision look confused.

~~"However, Mr. Sarvey argued that the Project is not consistent with Diesel Free by '33.[182] Diesel Free by '33 is a BAAQMD-sponsored initiative to encourage local communities in BAAQMD's territory to adopt strategies to reach zero diesel emissions in their communities by replacing diesel-fueled vehicles and equipment with zero-emission technologies.[183] The only document in the record is the Diesel Free by '33 Technology Assessment submitted by the Applicant, which summarizes BAAQMD's assessment of possible options for replacing diesel-fueled vehicles and equipment with zero emission technologies.[184] However, Mr. Sarvey did not cite to nor provide the Diesel Free by '33 program document. In addition, the IS/PMND identified the state, regional, and local laws applicable to the Project, and Diesel Free by '33 was not identified as a GHG emissions reduction strategy or program.[185] We thus conclude that Mr. Sarvey has not presented substantial evidence that Diesel Free by '33 is an applicable GHG emissions reduction strategy, program, or law or that the Project is inconsistent with it.[186]~~

BAAQMD continues to plead with the Energy Commission to not allow diesel backup generators and to support the "Diesel Free by 33" initiative. The commission continues to ignore the air district responsible for maintaining air quality in the Environmental Justice project area.

The CEQA analysis in the proceeding utilizes BAAQMD's 2017 CEQA Guidelines to determine that the project is consistent with CEQA. BAAQMD the air quality "experts" commented that diesel fuel generators should not be used to backup the Walsh Data Center. BAAQMD commented on the IS/MND for the Walsh Data Center on March 23, 2020 stating:

> At this time, data center projects using Tier 2 diesel back-up generators may be permitted by the Air District. However, to meet State and regional climate goals, the Air District encourages projects go above and beyond permitting requirements. In September 2018, the Air District launched Diesel Free by '33 to eliminate diesel emissions from our communities. Mayor Lisa Gillmor of the City of Santa Clara signed Diesel Free by '33 to pledge the City's commitment to cut diesel use to zero by the end of 2033. To this end, the project applicant could consider using the cleanest available technologies such as solar battery power, fuel cells, or Tier 4 generators. ……..We also encourage proponents of the Project and future data centers to seek available grant funding for zero-emitting alternatives to diesel back-up generators. [5]

This is not the first Data Center IS/MND that BAAQMD has requested that the CEC not allow diesel fuel in the generators to backup the data centers. On February 27, 2020 BAQMD commented on the Sequoia Data Center IS/MND stating:

> "At this time, data center projects using Tier 2 diesel back-up generators may be permitted by the Air District. However, to meet State and regional climate goals, the Air District encourages projects go above and beyond permitting requirements. In September 2018, the Air District launched Diesel Free by '33 to eliminate diesel emissions from our communities. Mayor Lisa Gillmor of the City of Santa Clara signed Diesel Free by '33 to pledge the City's commitment to cut diesel use to zero by the end of 2033. To this end, the Air District recommends that the project applicant use the cleanest available technologies such as solar battery power, fuel cells, or Tier 4 generators.
>
> For example, the Air District awarded a Climate Protection Grant of $300,000 to SVP to conduct a pilot project to demonstrate the viability of replacing data center back-up diesel generators with electric energy storage systems, and CEC has previously provided Electric Program Investment Charge (EPIC) awards for data center microgrids. We also encourage proponents of the Project and future

[5] Exhibit 503 Page 3 TN # 232507 Attachment 1
Bay Area Air Quality Management District Comments - Comment Letter for Walsh Data Center MND

data centers to seek available grant funding for zero-emitting alternatives to diesel back-up generators."[6]

BAAQMD also requested that the CEC require the use of something other than diesel fuel to back up the Mission College Data Center in comments on the IS/MND for the Mission College Data Center stating:

"According to the MND, the Project would include 43 Tier 2 diesel back-up generators, designed to provide 24 hours of emergency generation at full demand, in addition to two house power diesel engines. At this time, data center projects using Tier 2 diesel back-up generators may be permitted by the Air District, as long as the project complies with all air quality rules and regulations. However, to meet State and regional climate goals, the Air District encourages projects go above and beyond permitting requirements. In September 2018, the Air District launched Diesel Free by '33 to eliminate diesel emissions from our communities. Mayor Lisa Gillmor of the City of Santa Clara signed Diesel Free by '33 to pledge the City's commitment to cut diesel use to zero by the end of 2033. To this end, the Air District recommends that CEC compel the project applicant use the cleanest available technologies such as solar battery power, fuel cells, or Tier 4 generators.

Air District staff understands that several data centers of similar size and accompanying back-up diesel generators are planned for development in the area. That being the case, Air District staff recommends that CEC assess how power plant projects such as the back-up generators associated with these data centers will meet the electricity sector's share of the statewide goals in the Scoping Plan.

Lastly, Air District staff strongly recommends that CEC work with SVP, the City of Santa Clara, the Air District, and the project proponents for this and similar proposed data center projects to explore alternative options to reducing GHG emissions. For example, the Air District awarded a Climate Protection Grant of $300,000 to SVP to conduct a pilot project to demonstrate the viability of replacing data center back-up diesel generators with electric energy storage systems, and CEC has previously provided Electric Program Investment Charge (EPIC) awards for data center microgrids. We also encourage proponents of the Project and future data centers to seek available grant funding for zero-emitting alternatives to diesel back-up generators." [7]

[6] Attachment 2 TN 232242 Bay Area Air Quality Management District Comments - Comment Letter for Sequoia Data Center MND Sequoia Data Center Exhibit 301
[7] Attachment 3 TN 233079 Bay Area Air Quality Management District Comments -

The IS/MND fails to support the PD determination that there are no significant impacts to the environment.

Applicant and Staff failed to identify the Lafayette Data Center as adjacent to the Walsh Data Center during the proceeding and failed to analyze Lafayette's air quality and public health impacts in conjunction with the construction and operation of the Walsh Data Center. The generator yards for these projects are only separated by a little over 100 feet. The PD's conclusion that there are no significant impacts to the environment are not supported by staff and applicant's analysis because the emissions form the Lafayette Data Center are not analyzed in conjunction with emissions from the Walsh generators.

The PD and the MND analysis ignore emergency operation of the project despite that being the purpose of the project.

The environmental analysis conducted by CEC Staff in the MND does not analyze emergency operation for the projects 33 generators operating simultaneously. The proposed decision states that no emergency operation analysis is required because, *"While we agree that the operation of the Backup Generators in the event of interruption of electric service from SVP will create criteria pollutant emissions, we are persuaded that the number of assumptions required for assessing the impacts of those emissions render the results too speculative to be meaningful."*[8] The PD's conclusion that the project does not have any environmental impacts is not supported without an analysis of emergency operations the projects primary purpose.

The IS /MND apparently was able to model the impacts of one generator at a time not knowing when the generator would run, or how it long it would run, or the metrological conditions under which it would run. Despite those uncertainties the IS/MND concluded that the operation of one generator at a time could produce NO_2

Comment Letter for Mission College Data Center MND – Mission College Data Center Exhibit 301 Pages 1-3

[8] PD page 25 of 413

ambient air quality levels which are 88% of the State's 1 hour standard and 81% of the Federal 1 hour NO_2 ambient air quality standard.

The applicant was able to model the air quality impacts for CO and SO_2 under emergency conditions as required by BAAQMD regulations but somehow PM 2.5 and NO_2 impacts could not be modeled. The PD should deny the SPPE and require a more extensive AFC proceeding where the complexity of this project's emissions can be addressed.

PM 2.5 levels in the project area are not trending downward.

The PD states on page 19 that the monitoring data included in the IS/MND indicated that PM2.5 levels in the area have been trending downward since 2013. Page 5-3-3 of the IS/MND show annual PM2.5 levels increasing from 8.9 to 10.2 mg/m3 form 2016-2018. The 24-hour PM 2.5 levels have increased from 24 to 42 µg/m3 from 2016 to 2018 in the project area. We propose the PD strike the language stating, "~~that the monitoring data included in the IS/PMND indicated that PM2.5 levels in the area have been trending downward since 2013.~~"

The cumulative GHG emissions from the CEC data centers under review and approved are significant and have not been analyzed.

The evidence contained in exhibit 500 shows that the GHG emissions from the data centers under review and already approved by the CEC could potentially be 947,641 MTCO2e/yr.[9] The 947,641 MTCO2e/yr of GHG emissions equals 3% of the electric sector 2030 GHG emissions target and 2% of the electric sectors 2030 high target for the electric sector. Despite these enormous cumulative emissions, the PD and the IS/MND are silent on the significance of these emissions. The PD refuses to acknowledge the consequences of the approved and reasonably foreseeable data center projects and their massive GHG emissions and how these emissions will be consistent with the states 2030 and 2045 GHG emission targets.

[9] Does not include GHG emission from Lafayette Data Center.

DATA CENTER APPLICATIONS BEFORE THE COMMISSION

Facility	**Docket #**	**Total MW**	**Annaul MWh**	**($MTCO_2e/yr$)**
McLaren Data Center	17-SPPE-01	99 MW[10]	665,760 MWh[11]	154,958[12]
Laurelwood Data Center	19 SPPE-01	99 MW[13]	867,240 MWh[14]	171,770[15]
Walsh Data Center	19-SPPE-02	80 MW[16]	700,800 MWh[17]	109,164[18]
Sequoia Data Center	19-SPPE-03	95.5 MW[19]	846,340 MWh[20]	170,865[21]
San Jose Data Center	19-SPPE-04	99 MW[22]	803,730 MWh[23]	254,122[24]
2305 Mission College Data	19-SPPE-05	78.1 MW[25]	684,156 MWh[26]	86,762[27]
Memorex Data Center		99 MW[28]	N/A	N/A
Totals		650 MW	4,568,006	947,641 [29]

The PD and the MND fail to consider the cumulative impacts of the CEC's approval of four mega data centers and the potential impacts of the other data centers in review.

There is no dispute that the project area where all these data centers are being sited is an environmental justice community already overburdened by diesel particulate and other pollution. The CEC's approval of four new data centers with 200 diesel

[10] https://ww2.energy.ca.gov/sitingcases/mclaren/
[11] McLaren Final Decision TN 225170 Page 128 of 361
[12] McLaren Final Decision TN 225170 Page 129 of 361
[13] https://ww2.energy.ca.gov/sitingcases/laurelwood/
[14] Laurelwood Proposed Decision TN 231721 Page 210 of 368
[15] Laurelwood Proposed Decision TN 231721 Page 211 of 368
[16] https://efiling.energy.ca.gov/GetDocument.aspx?tn=229419-1&DocumentContentId=60822
[17] Walsh Data Center Application TN 228877-2 Page 111 of 203
[18] Walsh Data Center Application TN 228877-2 Page 112 of 203
[19] https://ww2.energy.ca.gov/sitingcases/walsh/ Page 10 of 222
[20] Sequoia Data Center Application TN 229419-1 Page 106 of 222
[21] Sequoia Data Center Application TN 229419-1 Page 131 of 122
[22] https://ww2.energy.ca.gov/sitingcases/sj2/
[23] San Jose Data Center Application TN 230741 Page 175 of 285
[24] San Jose Data Center Application TN 230741 Page 176 of 285
[25] https://ww2.energy.ca.gov/sitingcases/missioncollege/
[26] Mission College Data Center Application TN 230848 Page 121 of 222
[27] Mission Co0llege Data Center Application TN 230848 Page 122 of 222
[28] https://ww2.energy.ca.gov/sitingcases/all_projects_cms.html
[29] Revised from opening testimony to include CEC Staff new GHG emissions estimate for the SDC

generators totaling over 480 MW demonstrates that institutional racism continues to exist in the State of California Energy Agencies. The CEC approved the McLaren Data Center on November 7th 2018 with its 47- 2.5 Mw diesel generators. On February 4th 2020 the CEC approved the Laurelwood Data Center with its 56- 3 MW generators. The Commission now proposes to approve the Mission college Data Center on August 12, 2020 with its 43 - 2.5 MW generators. The Walsh Data Center the subject of this PD has 32 - 3MW generators. The Sequoia Data Center approved by CEC Staff in an IS/MND is less than a 1,000 feet from the Walsh Data Center and proposes for approval 54 - 2.25 MQW diesel generators. The Lafayette Data Center which is located adjacent to the Walsh Data Center proposes approval of 44 - 3 MW generators.

All of these projects are a few thousand feet from each other in an environmental justice community but the PD fails to even mention the other projects much less contain any analysis of their cumulative impacts.

In the current environment since George Floyds death it is incomprehensible that the California Energy Commission would fail to complete a cumulative analysis of its own approvals and disregard the low-income minority community around the project. The commission will not even perform an analysis of the emergency operation of the Walsh Data Center mush less consider the other projects cumulative impacts. 2HT requests that the commission take its knee off of the throat of the low-income minority community members around the project.

Respectively Submitted,

_____S/_____

Rob Simpson
Executive Director 2HT
124 Brewster Street
San Francisco, CA 94110

Attachment 1
Exhibit 503 TN # 232507
Bay Area Air Quality Management District Comments - Comment Letter for Walsh Data Center MND

March 23, 2020

Leonidas Payne
Siting, Transmission and Environmental Protection Division
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

RE: Walsh Data Center Project – Initial Study and Proposed Mitigated Negative Declaration

Dear Mr. Payne,

Bay Area Air Quality Management District (Air District) staff has reviewed the Initial Study and Proposed Mitigated Negative Declaration (MND) for the proposed Walsh Data Center (Project). The project applicant, 651 Walsh Partners, LLC, proposes to construct a four-story, 435,050 square foot data center building and a back-up energy generating facility with a generation capacity up to 80 megawatts (MW) in the City of Santa Clara. As the lead agency, the California Energy Commission (CEC) can grant the project applicant a Small Power Plant Exemption if it finds that the proposed project would not create a substantial adverse impact on environment or energy resources. The Air District's comments focus on how CEC could enhance its CEQA analysis and minimize emissions from the Project and future proposed data centers. This project meets the Air District's current permit rules and regulations, yet we encourage CEC to promote the use of cleaner technologies as is feasible and practical.

Consistency With Long-Term State Climate Goals

The greenhouse gas (GHG) emissions analysis in the MND estimates that the Project would generate 970 $MTCO_2e$ during construction, 2,313 $MTCO_2e$ per year for readiness testing and maintenance of the back-up generators, and 109,164 $MTCO_2e$ per year from operation of the data center (e.g., electricity use and other non-stationary sources). The MND concludes that the project's GHG emissions "would not be a 'cumulatively considerable' contribution under CEQA because they would conform with all applicable plans, policies, and regulations adopted for the purpose of GHG reductions; so, the maximum operation for [the Project's] non-stationary source GHG emissions (109,164 MTCO2e/yr) are determined to have less than significant impacts." The MND has not evaluated, disclosed, or discussed the Project's consistency with State policies requiring long-term reductions in emissions of GHGs, including the direction in Executive Orders B-55-18 and S-3-05 to respectively achieve carbon neutrality by 2045 and to achieve GHG emissions reductions equivalent to 80 percent below 1990 levels by 2050. *See Cleveland Nat'l*

Forest Foundation v. San Diego Ass'n of Governments (2017) 3 Cal.5th 497, 516 (CEQA analysis should "compare the [project's] projected greenhouse gas emissions … from 2020 through 2050 with the Executive Order's goal of reducing emissions to 80 percent below 1990 levels by 2050."). To address the Project's long-term impacts on GHG emissions, Air District staff recommends that CEC augment its GHG discussion to include an evaluation, disclosure, and discussion of whether the project will be consistent with these State policies.

Health Risk Assessment and Cumulative Toxic Air Contaminant Impacts

The Air District's CEQA Guidelines for assessing cumulative health risk impacts recommend that a lead agency evaluate all sources of toxic air contaminants (TACs) within 1,000 feet of a proposed project to ensure that the cumulative health risk from the project plus other nearby sources will not exceed a $PM_{2.5}$ concentration of 0.8 $\mu g/m^3$, a chronic Hazard Index of 10, or a carcinogenic risk of 100 additional cancers per million exposed population. Air District guidance recommends expanding the project radius when large complex sources are nearby, such as the San Jose International Airport (SJC). The MND does not address cumulative health impacts, and Air District staff recommends that CEC include a cumulative TAC analysis. The CEC can contact the Air District to obtain guidance and available updated data.

Recommendations to Achieve Additional Emissions Reductions

To the extent that a revised analysis concludes that the project's emissions would be cumulatively considerable, the project may need to incorporate mitigation measures to reduce emissions. Furthermore, even if the revised analysis does not conclude that the Project's emissions will be cumulatively considerable, the Air District encourages CEC to incorporate additional emissions reduction measures into its approval of the project. These recommended measures will help ensure that the Project's emissions impacts are reduced to the maximum extent possible, regardless of whether they are legally required to mitigate a significant impact.

The Air District provides the following recommendations for potential measures to further minimize emissions:

1. The MND identifies the predominant source of the Project's GHG emissions are from electricity use. Electricity would be provided by the city-operated, publicly-owned utility, Silicon Valley Power (SVP). Although SVP has a higher power mix of renewable energy sources than the Statewide power mix, the Project could significantly reduce GHG emissions by purchasing all its electricity from renewable sources. Specifically, Air District staff recommend that the Project join SVP's Santa Clara Green Power program and thus commit to purchase 100 percent renewable energy, or otherwise negotiate an electricity contract with SVP for 100 percent renewable energy.

2. Measure 2.3 in the City of Santa Clara's Climate Action Plan (CAP) calls for data centers to achieve a power usage effectiveness (PUE) rating of 1.2 or lower. Although the MND indicates that the Project is consistent with the CAP and is not required to achieve a PUE rating of 1.2 or lower based on its average rack power rating, the Air District recommends that the Project meet this standard since industry best practices indicate that a PUE of lower than 1.2 is achievable (e.g., Google Data Centers). Achieving lower PUE can be accomplished not only through improved efficiency design, but also through onsite generation of electricity. For example, the project applicant could install solar photovoltaic (PV) panels paired with battery storage, which aligns with CAP Measure 2.4 and could reduce the number of necessary diesel back-up generators.

3. According to the MND, the Project would include 33 Tier 2 diesel back-up generators, designed to provide 24 hours of emergency generation at full demand. These generators would use ultra-low sulfur diesel and comply with the Air District's permit requirements and Best Available Control Technology (BACT). At this time, data center projects using Tier 2 diesel back-up generators may be permitted by the Air District. However, to meet State and regional climate goals, the Air District encourages projects go above and beyond permitting requirements. In September 2018, the Air District launched Diesel Free by '33 to eliminate diesel emissions from our communities. Mayor Lisa Gillmor of the City of Santa Clara signed Diesel Free by '33 to pledge the City's commitment to cut diesel use to zero by the end of 2033. To this end, the project applicant could consider using the cleanest available technologies such as solar battery power, fuel cells, or Tier 4 generators.

Lastly, Air District staff strongly recommends that CEC work with SVP, the City of Santa Clara, the Air District, and the project proponents for this and similar proposed data center projects to explore alternative options to reducing GHG emissions. For example, the Air District awarded a Climate Protection Grant of $300,000 to SVP to conduct a pilot project to demonstrate the viability of replacing data center back-up diesel generators with electric energy storage systems, and CEC has previously provided Electric Program Investment Charge (EPIC) awards for data center microgrids. We also encourage proponents of the Project and future data centers to seek available grant funding for zero-emitting alternatives to diesel back-up generators.

Air District staff is available to assist CEC in addressing these comments. If you have any questions or would like to discuss Air District recommendations further, please contact Josephine Fong, Environmental Planner, at (415) 749-8637 or jfong@baaqmd.gov, or Jakub Zielkiewicz, Advanced Projects Advisor, at (415) 749-8429 or jzielkiewicz@baaqmd.gov.

Attachment 2 - TN 232242 Bay Area Air Quality Management District Comments - Comment Letter for Sequoia Data Center MND Sequoia Data Center Exhibit 301

February 27, 2020

Leonidas Payne
Siting, Transmission and Environmental Protection Division
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

RE: Sequoia Data Center Project – Initial Study and Proposed Mitigated Negative Declaration

Dear Mr. Payne,

Bay Area Air Quality Management District (Air District) staff has reviewed the Initial Study and Proposed Mitigated Negative Declaration (MND) for the proposed Sequoia Data Center (Project). The project applicant, C1-Santa Clara, LLC, proposes to construct a four-story, 703,450 square foot data center building and a back-up energy generating facility with a generation capacity up to 96.5 megawatts (MW) in the City of Santa Clara. As the lead agency, CEC can grant the project applicant a Small Power Plant Exemption if it finds that the proposed project would not create a substantial adverse impact on the environment or energy resources. Although this project meets the Air District's current rules and regulations to obtain a permit, we encourage CEC to promote the use of cleaner technologies. Additionally, we are providing the following comments as suggestions on how the CEC could enhance its CEQA analysis and minimize emissions from the Project and future proposed data centers.

Calculation of Greenhouse Gas Emissions

The greenhouse gas (GHG) emissions analysis in the MND estimates that the Project would generate 1,395 $MTCO_2e$ during construction, 4,301 $MTCO_2e$ per year for readiness testing and maintenance of the back-up generators, and 88,646 $MTCO_2e$ per year from operation of the data center (e.g., electricity use and other non-stationary sources). The MND concludes that the project's GHG emissions associated with construction and the back-up generators "would not have a significant direct or indirect impact on the environment," and that the GHG emissions associated with the data center operations "...are determined to have less than significant impacts."

While Air District permitting rules for generators focus on emissions from testing and maintenance, a comprehensive environmental assessment should also consider operational emissions in the significance determination. Based on a

review of the operational emissions calculations, the GHG emissions associated with the maximum possible electricity use appear to be underestimated in the MND. The MND states that "...the data center would consume up to a maximum electrical usage of 867,240 MWh per year," yet the calculation in Appendix F uses an applicant estimate of 655,633 MWh per year. In addition, the CO_2e intensity factor referenced in the MND (i.e., 430 pounds of CO_2e/MWh) is different from the CO_2e intensity factor used in Appendix F (i.e., 271 pounds of CO_2e/MWh). Air District staff recommends that CEC revise the GHG analysis, include GHG emissions from the maximum electrical usage associated with the data center, and coordinate with the Air District on best practices for quantifying GHG emissions.

Consistency With Long-Term State Climate Goals

The MND states that the Project's GHG emissions would not be cumulatively considerable because the Project "would conform with all applicable plans, policies, and regulations adopted for the purpose of GHG reductions." But the MND does not evaluate the project's consistency with State policies and plans requiring reductions in emissions of GHGs beyond 2020, including the SB 32 requirements to achieve GHG emissions reductions equivalent to 40 percent below 1990 levels by 2030, and direction in Executive Orders B-55-18 and S-3-05 to respectively achieve carbon neutrality by 2045 and to achieve GHG emissions reductions equivalent to 80 percent below 1990 levels by 2050. *See Cleveland Nat'l Forest Foundation v. San Diego Ass'n of Governments* (2017) 3 Cal.5th 497, 516 (CEQA analysis should "compare the [project's] projected greenhouse gas emissions ... from 2020 through 2050 with the Executive Order's goal of reducing emissions to 80 percent below 1990 levels by 2050."). To address the Project's impacts on GHG emissions beyond 2020, Air District staff recommends that CEC augment its greenhouse gas discussion to include an analysis of whether the project will be consistent with these State policies and plans.

Health Risk Assessment and Cumulative Toxic Air Contaminant Impacts

The Air District's CEQA Guidelines for assessing cumulative health risk impacts recommend that a lead agency evaluate all sources of toxic air contaminants (TACs) within 1,000 feet of a proposed project to ensure that the cumulative health risk from the project plus other nearby sources will not exceed a chronic Hazard Index of 10 or a carcinogenic risk of 100 additional cancers per million exposed population. Although Appendix F includes a health risk assessment (HRA) of the Project, it does not account for the cumulative health risk impacts associated with all nearby sources. In particular, the San Jose International Airport (SJC) is within 1,000 feet of the Project and includes multiple sources. Although the Air District provided emissions for SJC via the Project's submitted Stationary Source Inquiry Form, the emissions for SJC are not included in the cumulative analysis. Staff recommends that CEC revise the TAC analysis to include these additional nearby sources and contact the Air District to obtain updated data.

Recommendations for Achieving Additional Emission Reductions

To the extent that a revised analysis concludes that the project's emissions would be cumulatively considerable, the project will need to incorporate mitigation measures to reduce its emissions. The Air District provides the following recommendations for potential mitigation measures. Furthermore, even if the revised analysis does not conclude that the project's emissions will be cumulatively considerable, the Air District encourages CEC to incorporate additional emission reduction measures into its approval of the project. These recommended measures will help ensure that the project's emissions impacts are reduced to the maximum extent possible, regardless of whether they are legally required to mitigate a significant impact.

The MND identifies the predominant source of the Project's GHG emissions as electricity use, which would be provided by the city-operated, publicly-owned utility, Silicon Valley Power (SVP). Although SVP has a higher power mix of renewable energy sources than the Statewide power mix, the Project could significantly reduce GHG emissions by purchasing all its electricity from renewable sources. Specifically, Air District staff recommend that the Project join SVP's Santa Clara Green Power program and thus commit to purchase 100 percent renewable energy, or otherwise negotiate an electricity contract with SVP for 100 percent renewable energy.

Additionally, Measure 2.3 in the City of Santa Clara's Climate Action Plan (CAP) calls for data centers to achieve a power usage effectiveness (PUE) rating of 1.2 or lower. Although the MND indicates that the Project is consistent with the CAP and is not required to achieve a PUE rating of 1.2 or lower based on its average rack power rating, the Air District recommends that the Project meet this standard since industry best practices indicate that a PUE of lower than 1.2 is achievable (e.g., Google Data Centers). Achieving lower PUE can be accomplished not only through improved efficiency design, but also through onsite generation of electricity. As such, the Air District recommends that the project applicant install solar photovoltaic (PV) panels paired with battery storage, which also aligns with CAP Measure 2.4 and could replace some of the diesel back-up generators.

According to the MND, the Project would include 54 Tier 2 diesel back-up generators, designed to provide 24 hours of emergency generation at full demand. These generators would use ultra-low sulfur diesel and comply with the Air District's permit requirements and Best Available Control Technology (BACT). At this time, data center projects using Tier 2 diesel back-up generators may be permitted by the Air District. However, to meet State and regional climate goals, the Air District encourages projects go above and beyond permitting requirements. In September 2018, the Air District launched Diesel Free by '33 to eliminate diesel emissions from our communities. Mayor Lisa Gillmor of the City of Santa Clara signed Diesel Free by '33 to pledge the City's commitment to cut diesel use to zero by the end of 2033. To this end, the Air District recommends that the project applicant use the cleanest available technologies such as solar battery power, fuel cells, or Tier 4 generators.

The MND also states that the Project would use R-134a refrigerants in the cooling system. According to the MND, the industry standard leak rate is two percent per year. Refrigerants such as R-134a have a high global warming potential (GWP). The Air District recommends that the Project consider using low-GWP refrigerant alternatives.

Furthermore, Air District staff encourages the project applicant to use the most efficient GHG reduction strategies available at the time of Project approval and construction. The MND includes ten GHG mitigation measures, some of which are commitments. However, Applicant Proposed Measures (APMs) GHG-1 and GHG-6 are not commitments and it is unclear how these APMs will "reduce GHG impacts" and result in a less than significant GHG impact. The Air District recommends that all APMs be made commitments to reduce GHG emissions.

Air District staff understands that several data centers of similar size and accompanying back-up diesel generators are planned for development in the area. That being the case, Air District staff recommends that CEC assess and justify how power plant projects such as the back-up generators associated with these data centers will meet the electricity sector's share of the statewide goals in the Scoping Plan.

Lastly, Air District staff strongly recommends that CEC work with SVP, the City of Santa Clara, the Air District, and the project proponents for this and similar proposed data center projects to explore alternative options to reducing GHG emissions. For example, the Air District awarded a Climate Protection Grant of $300,000 to SVP to conduct a pilot project to demonstrate the viability of replacing data center back-up diesel generators with electric energy storage systems, and CEC has previously provided Electric Program Investment Charge (EPIC) awards for data center microgrids. We also encourage proponents of the Project and future data centers to seek available grant funding for zero-emitting alternatives to diesel back-up generators.

Air District staff is available to assist CEC in addressing these comments. If you have any questions or would like to discuss Air District recommendations further, please contact Josephine Fong, Environmental Planner, at (415) 749-8637 or jfong@baaqmd.gov, or Jakub Zielkiewicz, Advanced Projects Advisor, at (415) 749-8429 or jzielkiewicz@baaqmd.gov.

Sincerely,

Greg Nudd
Deputy Air Pollution Control Officer

cc: BAAQMD Director Margaret Abe-Koga
BAAQMD Vice Chair Cindy Chavez
BAAQMD Director Liz Kniss
BAAQMD Chair Rod G. Sinks

Attachment 3 TN 233079 Bay Area Air Quality Management District Comments - Comment Letter for Mission College Data Center MND – Mission College Data Center Exhibit 301 Pages 1-3

May 21, 2020

Leonidas Payne
Siting, Transmission and Environmental Protection Division
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

RE: Mission College Data Center Project – Initial Study and Proposed Mitigated Negative Declaration

Dear Mr. Payne,

Bay Area Air Quality Management District (Air District) staff has reviewed the Initial Study and Proposed Mitigated Negative Declaration (MND) for the proposed Mission College Data Center (Project). The project applicant, Oppidan Investment Company, proposes to construct two, three-story data center buildings encompassing a total square footage of 490,000, and a back-up energy generating facility with a generation capacity up to 78.1 megawatts (MW) in the City of Santa Clara. As the lead agency, the California Energy Commission (CEC) can grant the project applicant a Small Power Plant Exemption if it finds that the proposed project would not create a substantial adverse impact on the environment or energy resources. The Project will require Air District approval of an Authority to Construct and Permit to Operate the back-up diesel generators, and, as such, the Project will be required to comply with all applicable Air District regulations. Beyond Air District regulatory requirements, however, we encourage CEC to promote the project applicant to adopt the use of cleaner, non-diesel technologies. Additionally, we are providing the following comments as suggestions on how CEC could enhance its CEQA analysis and minimize emissions from the Project and future proposed data centers.

Consistency with Long-Term State Climate Goals

The MND states that the Project's greenhouse gas (GHG) emissions would not be cumulatively considerable because the Project "would conform with all applicable plans, policies, and regulations adopted for the purpose of GHG reductions," including California's carbon neutrality goal no later than 2045 pursuant to Executive Order (EO) B-55-18 and the City of Santa Clara's 2030 Climate Action Plan (CAP). However, although the MND states that "The project's use of diesel fuel would not obstruct SVP's [Silicon Valley Power's] ability to meet the requirements of SB 100," the MND does not evaluate how the Project's use of diesel fuel would be consistent with carbon neutrality no later than 2045. The Air District does not

believe that diesel use is consistent with carbon neutrality. If upon further evaluation CEC deems that deployment of 45 diesel back-up generators is indeed inconsistent with the State's carbon neutrality target, the Air District recommends that CEC compel the project applicant to consider alternative zero emitting technologies, commit to procuring renewable fuel, purchase offsets, or a combination of the three.

In addition, the MND states that "[t]he GHG emissions that would be generated by the project would not be a 'cumulatively considerable' contribution under CEQA" because "the operation for MCDC [Mission College Data Center] would conform to the City of Santa Clara's Climate Action Plan extended to at least 2030…" The Air District does not agree with this conclusion since the City of Santa Clara has not yet adopted its 2030 CAP, and it is unclear what measures will be included in the CAP and whether they will be mandatory.

Recommendations for Achieving Additional Emissions Reductions

To the extent that further analysis concludes the Project's emissions would be cumulatively considerable or inconsistent with the State's climate goals and the City's current Climate Action Plan, the Project may need to incorporate mitigation measures to reduce emissions. Even if the revised analysis does not conclude the Project's emissions will be cumulatively considerable, the Air District encourages CEC to compel the applicant to incorporate additional emission reduction measures as a condition of approval of the Project. These recommended measures will help ensure that the Project's emissions impacts are reduced to the maximum extent possible to achieve the most health protective air quality for Bay Area residents and to achieve climate change goals established by the Air District.

The GHG emissions analysis in the MND estimates that the Project would generate 1,231 $MTCO_2e$ during construction, 3,875 $MTCO_2e$ per year for readiness testing and maintenance of the back-up generators, and 136,384 $MTCO_2e$ per year from operation of the data center (e.g., electricity use and other non-stationary sources). The MND concludes that the Project's GHG emissions "would not be a 'cumulatively considerable' contribution under CEQA" and that the Project's emissions "…are determined to have less than significant impacts."

The MND identifies the predominant source of the Project's GHG emissions as electricity use, which would be provided by the city-operated, publicly-owned utility, Silicon Valley Power (SVP). Although SVP has a higher power mix of renewable energy sources than the Statewide power mix, the Project could significantly reduce GHG emissions by purchasing all its electricity from renewable sources. Specifically, Air District staff recommend that the Project join SVP's Santa Clara Green Power program and thus commit to purchase 100 percent renewable energy, or otherwise negotiate an electricity contract with SVP for 100 percent renewable energy.

According to the MND, the Project would include 43 Tier 2 diesel back-up generators, designed to provide 24 hours of emergency generation at full demand, in addition to two house power

diesel engines. At this time, data center projects using Tier 2 diesel back-up generators may be permitted by the Air District, as long as the project complies with all air quality rules and regulations. However, to meet State and regional climate goals, the Air District encourages projects go above and beyond permitting requirements. In September 2018, the Air District launched Diesel Free by '33 to eliminate diesel emissions from our communities. Mayor Lisa Gillmor of the City of Santa Clara signed Diesel Free by '33 to pledge the City's commitment to cut diesel use to zero by the end of 2033. To this end, the Air District recommends that CEC compel the project applicant use the cleanest available technologies such as solar battery power, fuel cells, or Tier 4 generators.

Air District staff understands that several data centers of similar size and accompanying back-up diesel generators are planned for development in the area. That being the case, Air District staff recommends that CEC assess how power plant projects such as the back-up generators associated with these data centers will meet the electricity sector's share of the statewide goals in the Scoping Plan.

Lastly, Air District staff strongly recommends that CEC work with SVP, the City of Santa Clara, the Air District, and the project proponents for this and similar proposed data center projects to explore alternative options to reducing GHG emissions. For example, the Air District awarded a Climate Protection Grant of $300,000 to SVP to conduct a pilot project to demonstrate the viability of replacing data center back-up diesel generators with electric energy storage systems, and CEC has previously provided Electric Program Investment Charge (EPIC) awards for data center microgrids. We also encourage proponents of the Project and future data centers to seek available grant funding for zero-emitting alternatives to diesel back-up generators.

Air District staff is available to assist CEC in addressing these comments. If you have any questions or would like to discuss Air District recommendations further, please contact Jakub Zielkiewicz, Advanced Projects Advisor, at (415) 749-8429 or jzielkiewicz@baaqmd.gov.

Sincerely,

Greg Nudd
Deputy Air Pollution Control Officer

cc: BAAQMD Director Margaret Abe-Koga
BAAQMD Vice Chair Cindy Chavez
BAAQMD Director Liz Kniss
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