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Connect with the
Bay Area Air District:



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 MTCO_{2e}/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 µg/m³, 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.

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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 Jakob Zielkiewicz, Advanced Projects Advisor, at (415) 749-8429 or jzielkiewicz@baaqmd.gov.

Sincerely,

A handwritten signature in black ink, appearing to be 'Greg Nudd', written in a cursive style.

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