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State of California
State Energy Resources Conservation and Development Commission

In the matter of:

Great Oaks South Backup
Generating Facility

Docket 20-SPPE-01

Intervenor Sarvey's Reply Testimony

Air Quality

The Staff and applicants' analysis does not consider that the Equinix Data Center is part of a larger development the Great Oaks Mixed Use Project which received its Final Environmental Impact Report (adopted November 18, 2014 by Council Resolution No. 77219).¹ The entire project does not seem to be considered anywhere in any analysis. According to the projects addendum the project includes up to 720 residential units and 154,000 square feet of commercial uses.² Impacts to the residents of the approved residential and commercial development are apparently never considered for noise and air quality impacts.

¹ Exhibit 301

https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwjLjYTEj8jyAhUJFzQIHRa5BacQFnoECAwQAQ&url=https%3A%2F%2Fsanjose.granicus.com%2FMetaViewer.php%3Fview_id%3D%26event_id%3D2687%26meta_id%3D637886&usg=AOvVaw0tMeq1Lm4uNIOgh-LHOYqW

² Exhibit 301 Page 2

https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwjLjYTEj8jyAhUJFzQIHRa5BacQFnoECAwQAQ&url=https%3A%2F%2Fsanjose.granicus.com%2FMetaViewer.php%3Fview_id%3D%26event_id%3D2687%26meta_id%3D637886&usg=AOvVaw0tMeq1Lm4uNIOgh-LHOYqW

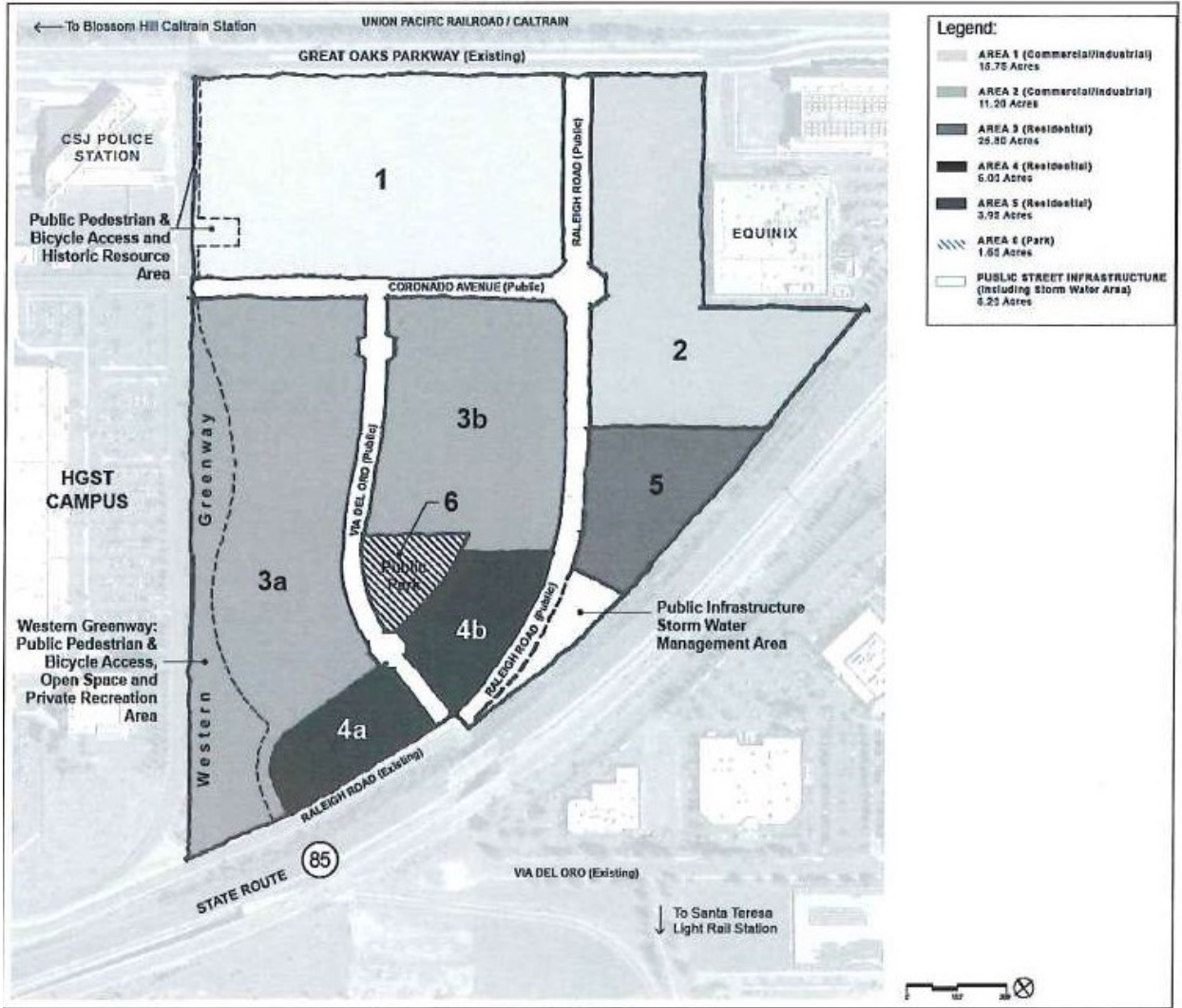


Figure 1: Land Use Plan

Emergency Operations

Despite information provided by BAAQMD on non-emergency operations of data centers in the Bay Area³ CEC Staff still refuses to evaluate emergency operations of the Great Oaks South generators. This is despite the fact that the air district determined that over half of the data centers surveyed in their jurisdiction operated in emergency mode during the 13-month period under consideration. As CEC staff states on Page 10 of **Appendix B** in the DEIR Staff, "concludes that the BAAQMD review confirms that

³ Exhibit 302 TN 235803 Bay Area Air Quality Management District Comment Letter for the Great Oaks South Data Center NOP

these types of events remain infrequent, irregular, and unlikely and the resulting emissions are not easily predictable or quantifiable and cannot be modeled in an informative or meaningful way. The BAAQMD review does not show that these facilities operate significantly more than staff previously analyzed in the grid reliability context in prior cases.”⁴ “For the prior cases in SVP territory, staff estimated a 1.6 percent probability of any given data center facility experiencing a power outage in a period of a year.”⁵

According to BAAQMD’s supplemental data between November 27, 2019 and September 30, 2020 seven **Santa Clara Data Centers** experienced emergency operations with one Santa Clara data center operating in emergency mode twice during that period. The outages lasted from 12 minutes up to 11 hours. The outages occurred for various reasons including lightning strikes, power quality events, UPS repair, and utility power outages. Only the Santa Clara Data Center outages that occurred between November 27, 2019 and September 16, 2020 and are not connected to the August heat wave are summarized in Table 1 below.

Table 1 BAAQMD Reported Outages Summary.

| Santa Clara Data Center Number | Date | Number of Engines | Duration | Reason for Outage |
|--------------------------------|-------------|-------------------|------------|-------------------|
| Number 4 | 9-16-20 | 44 | 0.5 hours | Lightning Strike |
| Number 7 | 9-6-20 | 13 | 3.5 hours | Power Outage |
| Number 8 | 11-27-19 | 24 | 12 minutes | Power Outage |
| Number 8 | 2-15-20 | 24 | 0.3 hours | Power Quality |
| Number 10 | Unspecified | 4 | 4-11 hours | Power Bump |
| Number 14 | 11-27-19 | 4 | 4 hours | Utility Sag |
| Number 15 | Various | 7 | 2 hours | UPS Repair etc |
| Number 16 | 7-30-20 | 4 | 2.5 hours | Power Outage |

Utilizing CEC staff’s previous methodology for determining the frequency of data center outages eight data center emergency operations were conducted at the 39 Santa Clara Data Centers between November 27, 2019 and September 16, 2020. According to BAAQMD’s data the probability of a Santa Clara Data Center experiencing an outage

⁴ FEIR Page 7-18

⁵ FEIR Appendix B page 8

in any one year is 8/39 or approximately 20.5% a year without considering any interruptions due to extreme heat or PSPS events. The statement by staff in the FEIR that, “*The BAAQMD review does not show that these facilities operate significantly more than staff previously analyzed in the grid reliability context in prior cases.*”⁶ is not supported by the data BAAQMD has provided.

Staff utilizes several excuses for not performing modeling of emergency operations. Staff states in the FEIR that, “*the air quality impacts, especially the short-term (1-hour, 8-hour, and 24-hour) impacts, of standby generator operation during emergencies are not quantified because impacts of emergency operations are typically not evaluated during facility permitting and air districts do not normally conduct an air quality impact assessment of such impacts.*”⁷ Ironically BAAQMD the air district where the facility is located is specifically requesting that CEC Staff model emergency operations. BAAQMD in its comments on the facilities DEIR stated:

In addition, the DEIR discussion of the Air District’s analysis of data center diesel engine operations concludes that emergency operations “...remain infrequent, irregular, and unlikely and the resulting emissions are not easily predictable or quantifiable and cannot be modeled in an informative or meaningful way.” The Air District remains concerned about the environmental impacts associated with using backup diesel generators in non-testing/non-maintenance operations. The Air District has previously submitted historical evidence that backup generators operate for non-testing/non-maintenance reasons, and this information should be incorporated into the emissions calculations for backup generator operations. Although the DEIR rightfully notes that emergency operations are less predictable than maintenance and testing, the evidence from historical operations should not be discounted and dismissed, but rather should be incorporated into the analysis to show various potential scenarios of backup power generation operations beyond routine testing and maintenance. Backup generators are operating more frequently than previously understood because of climate change induced crises¹ and grid operational challenges,² and as such, it is critical to consider the impacts of operating the emergency backup diesel generators. Air District staff recommends that the DEIR include GHG, criteria pollutant, and toxic air contaminant (TAC) impacts due to the non-testing/non-maintenance operations of backup power generators. Various scenarios should be considered for non-testing/non-maintenance operations, including non-zero hours of operation and concurrent generator operations.⁸

⁶ FEIR Page 7-18

⁷ FEIR Page 7-19

⁸ Exhibit 303 TN 238700 BAAQMD Comment Letter for the Great South Oaks Backup Generating Facility DEIR Page 3

CEC Staff then posits that, *"CARB and BAAQMD agree the use of Tier 4 engines is adequate in this case and, given the circumstances, further modeling of emissions may not be necessary if the project applicant agreed to this project change."* Staff expects that the same recommendation applies to the Great Oaks South Backup Generating Facility, which would also meet Tier 4 emission standards.⁹ This is another completely unsupported statement by CEC Staff as can be seen above as BAAQMD specifically requested that CEC a model emergency operations.

GHG Emissions

On August 6, 2021 the applicant filed a plan to mitigate the projects indirect GHG emissions from the use of electricity and satisfy the City of San Jose's greenhouse gas emission reduction plan. The applicant proposes to mitigate the projects GHG emissions by enrolling in the Equinix Clean Energy Program. The Equinix Clean Energy Program consist of 66% unbundled Renewable Energy Credits¹⁰ and emission reductions achieved from two wind farms in Oklahoma and Texas¹¹ totaling 235 MW's which began operations in 2016.¹²

CEC Staff's mitigation measure GHG-1 requires the applicant to enroll in the San Jose Clean Energy 100% green energy program. In the last year, SJCE contracted for 487 MW of new renewable generation, which will supply 44 percent of SJCE's load in 2023.¹³ SJCE is contributing to renewable energy development in the State of California. SJCE is also developing renewable assets that will provide resource adequacy in California which will eliminate some GHG emissions from California power plants. SJCE clean energy assets will help prevent rolling blackouts and the use of

⁹ FEIR Page 7-19

¹⁰ TN 239199 SV-1 Alternative Measure to Comply with City of San Jose GHGRS Page 34,35

¹¹ <https://sustainability.equinix.com/environment/scaling-renewable-energy/>

¹² TN 239199 SV-1 Alternative Measure to Comply with City of San Jose GHGRS Page 4 of 35

¹³ SAN JOSE CLEAN ENERGY 2020 INTEGRATED RESOURCE PLAN SEPTEMBER 1, 2020

Page 4 https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwjH7df5-snyAhUJFPH0KHSweBfwQFnoECAMQAQ&url=https%3A%2F%2Fsanjos.ecleanenergy.org%2Fwp-content%2Fuploads%2F2020%2F09%2FSan-Jose-Clean-Energy-2020-Integrated-Resources-Plan-Public-Version.pdf&usg=AOvAw2x1zaLIRhf0_A2nt08SmrY

diesel generators in electrical emergencies. “Table 2 below sets forth new resources SJCE had under contract or in negotiations to contract as of June 30, 2020.”¹⁴

Table 2: Long-Term Contracts

| Project | Term | Technology | MW | Online Date | Location (County) |
|---------|----------|---|----------|-------------|-------------------|
| 1 | 20 years | Solar + Storage | 100 + 10 | 12/31/2022 | Fresno |
| 2 | 15 years | Solar | 100 | 12/31/2022 | Kern |
| 3 | 12 years | Solar with Guaranteed Delivery in HE 7-22 | 62 | 12/31/2021 | Kern |
| 4 | 15 years | Out of State Wind | 225 | 12/31/2021 | New Mexico |

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Requiring enrollment in the SJCE green program provides GHG and reliability benefits which will not be realized by allowing the applicant to use the Equinix Clean Energy Program and will also satisfy the city of San Jose’s GHGRS. Further SJCE integrated resource plan has state oversight through agency review of SJCE resource adequacy plan where the Equinix Clean Energy program has no State of California or any other governmental agency oversight ensuring its effectiveness.

Alternatives

The FEIR eliminates fuel cells as an alternative to diesel fired backup generation. The FEIR states, “*the technology has not shown proven operating hours for large-scale backup energy solutions used in data centers. At this time further testing is needed to verify the compatibility and reliability of these fuel cells. To ensure system compatibility, more test sites or hybrid power systems in current data centers should be considered.*”

¹⁴ SAN JOSE CLEAN ENERGY 2020 INTEGRATED RESOURCE PLAN SEPTEMBER 1, 2020
Page 16 https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwjH7df5-snyAhUFPH0KHSweBfwQFnoECAMQAQ&url=https%3A%2F%2Fsanjoscleanenergy.org%2Fwp-content%2Fuploads%2F2020%2F09%2FSan-Jose-Clean-Energy-2020-Integrated-Resources-Plan-Public-Version.pdf&usg=AOvAw2x1zaLIRhf0_A2nt08SmrY

¹⁵ SAN JOSE CLEAN ENERGY 2020 INTEGRATED RESOURCE PLAN SEPTEMBER 1, 2020
Page 16 https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwjH7df5-snyAhUFPH0KHSweBfwQFnoECAMQAQ&url=https%3A%2F%2Fsanjoscleanenergy.org%2Fwp-content%2Fuploads%2F2020%2F09%2FSan-Jose-Clean-Energy-2020-Integrated-Resources-Plan-Public-Version.pdf&usg=AOvAw2x1zaLIRhf0_A2nt08SmrY

Equinix is developing data center SV-11 in Silicon Valley near the Great Oaks South Data Center. The first phase of SV-11 is to be powered by 20 megawatts of Bloom Energy Fuel Cells.¹⁶ That can easily be phased in at the Great Oaks Data Center over the construction of the facility.

The applicant insists that natural gas engines cannot be used to replace diesel backup generators due to the fact that in a natural disaster natural gas may not be available due to pipeline disruptions while diesel fuel will definitely be available. The applicant provides no evidence which demonstrates that diesel fuel will be more available than natural gas during a natural disaster. Studies by major suppliers of backup generators have demonstrated that natural gas generators will in fact be more reliable than diesel generators due to the fact that traffic disruptions occur more frequently during natural disasters than natural gas pipeline interruptions.

A Jenbacher analysis on natural gas generators as backup power for data centers concludes that natural gas generators are more reliable than diesel backup generation. The white paper states, *“Correlated failure between the natural gas grid and the electric grid has an estimated likelihood of 1.5% for outages over 36 hours. In comparison, diesel resupply failure is 14% at 36 hours, increasing to 28% at 72 hours. For critical reliability, natural gas generators are less likely than diesel generators to fail during a power outage.”*¹⁷

A Generac white paper entitled Understanding Natural Gas Fuel Reliability for Backup Power concludes that natural gas backup is more reliable than diesel because, *“Despite their widespread use, diesel-fueled gensets are vulnerable to events that could cripple transportation infrastructures, making refueling problematic—or perhaps even impossible. Hurricanes and severe storms can close roads. Grid failures can make it impossible for suppliers to pump fuel into delivery trucks. For example, Hurricane Sandy, which slammed into the Northeastern U.S. in late October of 2012, caused significant damage to fuel distribution infrastructure. Fuel distribution networks were*

¹⁶ <https://fuelcellsworks.com/news/equinix-opening-new-142m-fuel-cell-powered-data-center/>

¹⁷ https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwi8_J3emcryAhUVKX0KHeTQC1UQFnoECAkQAw&url=https%3A%2F%2Fwww.innio.com%2Fimages%2Fmedias%2Ffiles%2F2083%2Finnio_datacenter_whitepaper_en_a4_screen_119009-en.pdf&usg=AOvVaw3oVFgUE6-aQ-3QhIptuE3v Page 10

paralyzed. Critical terminals for petroleum and petroleum products were badly damaged. Many service stations lost power and couldn't pump gas or diesel fuel. Whereas diesel gensets can operate reliably during extended outages, users can't always count on the availability of diesel fuel and deliveries.”¹⁸

Burns McDonnell issued a white paper entitled Natural Gas Is A Smart Choice for Data Center Backup Power even in earthquake prone area. The white paper concludes that, *“natural gas is an ideal option for data center backup power. But some operators have been reluctant to rely on natural gas to maintain 24/7 service because they're concerned about the resiliency of pipeline infrastructure — especially in earthquake-prone areas. But well-designed natural gas pipelines have performed well in seismic conditions for decades. Having successfully installed high-pressure natural gas pipelines, often in earthquake-prone regions, we have experienced the benefit of smart design. Smart design validates the resiliency and redundancy of the natural gas grid, making natural gas generators a reliable choice for data center backup power.”¹⁹*

Black and Veatch issued a white paper entitled, Powering Data Centers with Natural Gas. The paper concludes that natural gas backup generation allows data centers to embrace sustainability without losing reliability.²⁰

The Joint Institute for Strategic Energy Analysis issued a paper entitled, A Comparison of fuel choice for Backup Generators. The study concluded that, “We find that, given our assumptions of fuel security for diesel and natural gas, natural gas generators are less likely than diesel generators to fail during a power outage.”²¹ The paper

¹⁸ Understanding natural gas fuel reliability for backup power Page 2

https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwi8_J3emcryAhUVKX0KHeTQC1UQFnoECAkQAw&url=https%3A%2F%2Fwww.innio.com%2Fimages%2Fmedias%2Ffiles%2F2083%2Ffinnio_datacenter_whitepaper_en_a4_screen_ijnb-119009-en.pdf&usg=AOwaw3oVFgUE6-aQ-3QhIptuE3v

¹⁹<https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwidiVuOmrYAhVLPfFsKHW4NBOKQFnoE CACQAQ&url=https%3A%2F%2Femcsolutions.com%2Fwp-content%2Fuploads%2F2020%2F04%2FWhite-Paper-by-Burns-McDonnell-Natural-Gas-is-a-Smart-Choice-for-Data-Center-Backup-Power.pdf&usg=AOwaw2g3-oFktOR5-zXvOIRAlcg> Page 1

²⁰ <https://www.bv.com/resources/powering-data-centers-natural-gas>

²¹https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwiiZNL_o8ryAhWjJTQIHSeRA0oQFnoE CAIQAQ&url=https%3A%2F%2Fwww.nrel.gov%2Fdocs%2Ffy19osti%2F72509.pdf&usg=AOwaw3swekwpUucpknN9njbYZ0N Page 5 of 59

provides a reliability comparison for natural gas versus diesel for various areas of the country as seen in the table below.

Table ES-1. System Reliability by Region and Fuel Type.

| Region | Diesel Reliability | Natural Gas Reliability | Difference |
|-----------------------|--------------------|-------------------------|------------|
| United States Average | 94.7% | 97.3% | 2.6% |
| Florida | 90.1% | 95.5% | 5.4% |
| New Jersey | 97.2% | 98.2% | 1.0% |
| Texas | 97.3% | 98.3% | 1.0% |

Outage data are drawn from the outage distribution of each region, as discussed in Section 4. Generator reliability estimates are discussed in Section 3.

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The San Jose Data Center proposed by Microsoft recently conducted an analysis and concluded that natural gas backup generators are a feasible alternative to diesel engines and they are including them in their amended application.²³

Natural Gas engines or fuel cells are a feasible and reliable alternative to diesel gensets. Since CEC Staff refuses to prove emergency operations will not result in a significant impact natural gas engines should be required. Staff’s testimony states that, “NOx and volatile organic compounds (VOC) emissions would reduce by more than 99 percent using natural gas ICEs compared to diesel engines that meet Tier 2 or Tier 4 emission standards. The PM emissions would reduce by more than 95 percent using natural gas ICEs compared to diesel engines that meet Tier 4 emission standards. There would be less reduction in carbon monoxide (CO) and sulfur dioxide (SO₂) emissions (about 86 percent reduction for CO and about 56 percent reduction for SO₂).²⁴ Staff testimony details the fact that natural gas engines are environmentally superior to diesel gensets and the commission should require them to lower GHG and criteria air pollutants from the project.

²²https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwIizNL_o8ryAhWjJTQIHSeRA0oQFnoECAIQAAQ&url=https%3A%2F%2Fwww.nrel.gov%2Fdocs%2Ffy19ost%2F72509.pdf&usq=AOwAw3swekwpUucpknN9njbYZ0N Page 6 of 59

²³ **SAN JOSÉ CITY DATA CENTER APPLICANT SUPPLEMENTAL STATUS REPORT #16**
<https://efiling.energy.ca.gov/GetDocument.aspx?tn=238432&DocumentContentId=71735>

²⁴ FEIR Pages 5.28, 29

RESUME OF ROBERT SARVEY

Academic Background

BA Business Administration California State University Hayward, 1975

MBA Tax Law California State University Hayward, 1985

Experience

San Joaquin Valley Air Pollution Control District Citizens Advisory Board Industry

Representative: Analyzed proposed air quality regulations and made recommendations to the Governing Board for approval.

GWF Peaker Plant 01-AFC-16: Participated as an Intervenor in the project and helped negotiate and implement a 1.3 million dollar community benefits program. Successfully negotiated for the use of local emission reduction credits with GWF to offset local air quality impacts.

Tesla Power Project 01- AFC-04: Participated as an Intervenor and provided air quality testimony on local land use and air quality impacts. Participated in the development of the air quality mitigation for the project. Provided testimony and briefing which resulted in denial of the PG&E's construction extension request.

Modesto Irrigation District 03-SPEE-01: Participated as an Intervenor and helped negotiate a \$300,000 air quality mitigation agreement between MID and the City of Ripon.

Los Esteros: 03-AFC-2 Participated as an Intervenor and also participated in air quality permitting with the BAAQMD. Responsible for lowering the projects permit limit for PM-10 emissions by 20%.

SFERP 4-AFC-01: Participated as an Intervenor and also participated in the FDOC evaluation. My comments to the BAAQMD resulted in the projects PM -10 emission rate to be reduced from 3.0 pounds per hour to 2.5 pounds per hour by the District. Provided testimony on the air quality impacts of the project.

Long Beach Project: Provided the air quality analysis which was the basis for a settlement agreement reducing the projects NOx emissions from 3.5ppm to 2.5ppm.

ATC Explosive Testing at Site 300: Filed challenge to Authority to Construct for a permit to increase explosive testing at Site 300 a DOE facility above Tracy. The permit was to allow the DOE to increase outdoor explosions at the site from 100 pounds per charge to 300 pounds per charge and also grant an increased annual limit on explosions from 1,000 pounds of explosive to 8,000 pounds of explosives per year. Contested the permit and succeeded in getting the ATC revoked.

CPUC Proceeding C. 07-03-006: Negotiated a settlement with PG&E to voluntarily revoke Resolution SU-58 which was the first pipeline safety waiver of GO112-E granted in the State of California. Provided risk assessment information that was critical in the adoption of the Settlement Agreement with PG&E which, amongst other issues, resulted in PG&E agreeing to withdraw its waiver application and agreeing to replace the 36-inch pipeline under the sports park parcel after construction.

East Shore Energy Center: 06-AFC-06: Intervened and provided air quality testimony and evidence of cancellation of Eastshore's power purchase agreement with PG&E.

Colusa Generating Station: 06-AFC-9: Participated as air quality consultant for Emerald Farms. Filed challenge to the PSD Permit.

CPUC proceeding 08-07-018: Tesla Generating Station CPCN participated in proceeding which was dismissed due to motion by IEP. Reviewed all filings, filed protest, signed confidentiality agreement and reviewed all confidential testimony.

GWF Tracy Combined Cycle 08-AFC-07: Participated in negotiation of the Air Quality Mitigation Agreement with the San Joaquin Valley Air Pollution Control District and GWF.

CPUC Proceeding 09-09-021: Provided Testimony that demonstrated PG&E failed to follow its environmental protocol in the LTPP. Provided testimony and evidence that PG&E's need had fallen since 2007 and that the Commission should limit PG&E's procurement to the 950-1000 MW Range.

CPUC Proceeding A. 09-04-001: Demonstrated PG&E had violated terms of Mariposa Settlement Agreement. PG&E was fined \$25,000 for breach of settlement.

CPUC Proceeding A. 09-10-022: Provided Testimony on behalf of Californians for Renewable Energy. Provided confidential evaluation of PPA value. Provided testimony and evidence that PG&E had violated the Mariposa Settlement. Provided testimony that demonstrated PG&E's demand had fallen sharply since the issuance of D. 07-12-052.

Oakley Generating Station 09-AFC-04: Participated as an intervenor. Provided testimony in Alternatives, Air Quality, Environmental Justice, and Water Quality. Negotiated settlement with CCGS to not use ERC's and instead exclusively use 2.5 million dollars to create real time emission reductions through BAAQMD real time emission reduction programs.

Pio Pico PSD Permit: Participated in the Pio Pico PSD permit. Comments resulted in a remand to the air district and a lowering of particulate matter emission limits by 10%

CPUC Proceeding A.11-12-003: Was credited by the decision for demonstrating that an additional 5 MW of firm capacity was not needed from the Thermal Energy Biomass Plant. Decision led to the plants closure.

**BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
COMMISSION OF THE STATE OF CALIFORNIA**

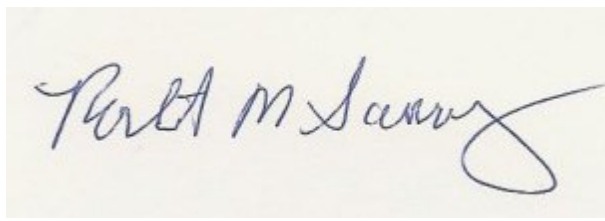
In the Matter of the Great Oaks South Generating Facility
Docket Number 20-SPPE-01

Declaration of Robert Sarvey

I Robert Sarvey Declare as Follows:

1. I prepared the attached rebuttal testimony for the Great Oaks South Generating Facility.
2. A copy of my professional qualifications and experience is included with this Testimony and is incorporated by reference in this Declaration.
3. I am personally familiar with the facts and conclusions related in the attached prepared testimony and if called as a witness could testify competently thereto.
4. It is my professional opinion that the attached prepared testimony is valid and accurate with respect to issues that it addresses.

I declare under penalty of perjury, under the laws of the State of California, that the foregoing is true and correct to the best of my knowledge and that this declaration was executed in Tracy, California on August 24, 2020.

A handwritten signature in blue ink that reads "Robert M. Sarvey". The signature is written in a cursive style with a large, sweeping flourish at the end.

Robert M. Sarvey
501 W. Grant Line Rd.
Tracy, CA. 95376
209 835-7162