

DOCKETED

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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

Robert Sarvey's Utilities and Service Systems Reply Testimony

According to the IS/MND, *“Construction and operation of the project would not require new or expanded electric power utilities. Therefore, potential impacts would be less than significant.”*¹ The Walsh Data center itself would require the construction of a new distribution substation to support the WDC. *“The substation would be ultimately owned and operated by SVP as part of its distribution network. The proposed new substation would be interposed on SVP’s South Loop between the 115kV receiving station and an adjacent 60kV substation. SVP has not yet designed the 60 kV transmission lines that interconnect the new substation, SVP has estimated that one transmission line would come in to the site from the north and one from the south, both routes paralleling the existing UPPR rail lines. There may be up to six new transmission poles.”*²

The Walsh data center is part of a cumulative impact to the utilities and services systems of SVP. Silicon Valley Power’s 2018 integrated resource procurement plan reports that, *“With recent load growth of 5 to 7 percent and increasing demand from data centers, SVP is looking to increase the capacity of its existing system. Currently the following projects have been approved to increase the capacity or enhance reliability of the transmission system.”*

¹ IS/MND Page 5.18-6

² IS/MND Page 4-13

Transmission Upgrades

3.6.1.3.1 Scott Receiving Station Upgrades

SVP's Scott Receiving Station currently is fed by 115 kV lines and transformers to reduce the voltage to 60 kV. Due to system load growth, SVP is currently evaluating breaker upgrades and installing larger transformers. This project is projected to be completed by mid-2020.

3.6.1.3.2 Northern Receiving Station Upgrades

SVP's Northern Receiving Station currently is fed by 230 kV and 115 kV lines and transformers reduce the voltage to 60 kV. Due to system load growth, SVP is currently evaluating breaker upgrades and installing larger transformers. This project is projected to be completed by end of 2021. SVP is investigating installation of an additional 230kV transformer to provide redundancy to the existing 230 kV transformer. This is scheduled for installation to be complete in 2026. During the spring of 2018, SVP completed a breaker replacement project which enabled increased loading for the existing system.

3.6.1.3.3 South Loop Expansion

SVP's 60 kV transmission system is arranged in various circuit loops within The City. There are five loops, Northeast Loop, Northwest Loop, South Loop, East Loop, and Center Loop. Based on load growth in its South Loop, SVP is in the design phase of reconfiguring and reconstructing the South Loop. Construction should be completed by end of 2020.

3.6.1.3.4 Northern Receiving Station and Scott Receiving Station Lines #1 and #2

These lines (115kV) are scheduled to be upgraded to allow for higher capacity. Design has been completed and construction is scheduled to be complete by April, 2019."³

Distribution Upgrades

The distribution planning study which includes the load forecast and distribution area capacity study ensures adequacy of the capacity in the distribution system and identifies upgrades and construction of new distribution systems including substation. The following distribution projects have been identified for implementation:

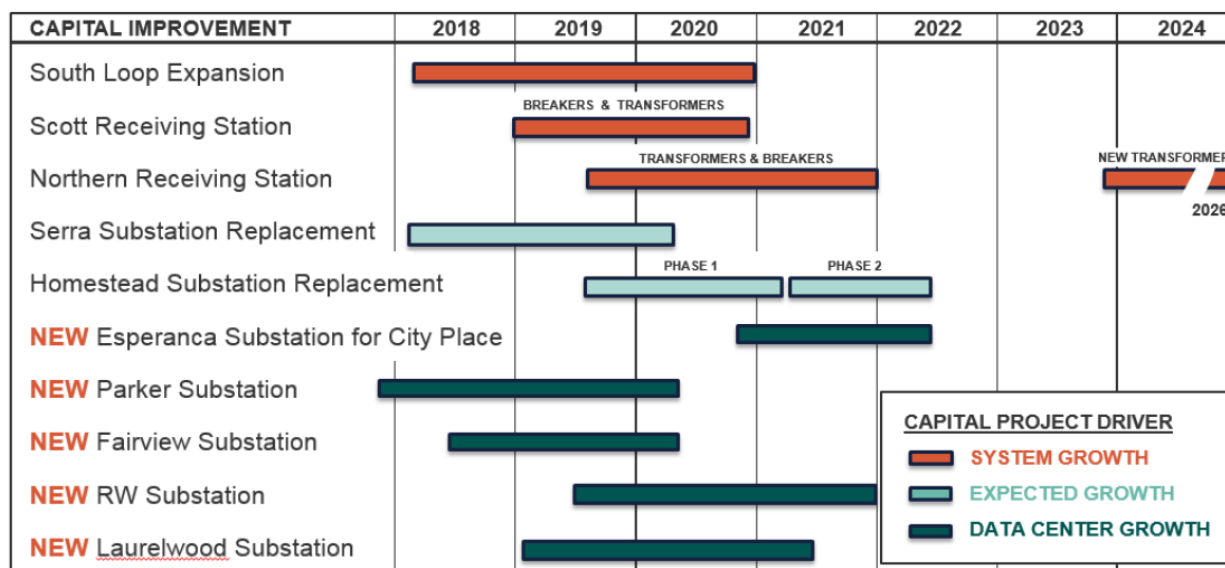
- Serra Substation replacement: This involves removing existing single transformer Bank substation and replacing with 2-transformer bank Substation.
- Homestead Substation: This involves removing existing 2-transformer bank substation and replacing with 2-higher capacity transformer bank substation.
- Parker Substation: This will be new substation dedicated to single customer.
- Fairview Substation expansion: This involves adding third transformer bank in existing 2 bank substation.
- Oaks Junction (RW) Substation: This will be new substation dedicated to single customer.
- Laurelwood Substation: This will be new substation dedicated to single customer.

³ **SVP 2018** – Silicon Valley Power (SVP). 2018 Integrated Resource Plan for Silicon Valley Power. November 12, 2018. Available online at:

<http://www.siliconvalleypower.com/home/showdocument?id=62481> Page 3-17

- Freedom Circle Junction Substation: This will be new substation dedicated to single customer.
- Esperanca Substation: This will be new general distribution substation to serve new developments proposed around Levi's stadium. ⁴

The SVP 2018 Integrated Resource Planning document provides the following chart detailing the extensive upgrades needed to accommodate data center load.



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According to Silicon Valley Power Quarterly Newsletter for Business, “SVP’s current infrastructure will not be able to carry the high power demands of these new data centers. According to research conducted by SVP’s engineering team, the current system could overload by 2021 without any upgrades or investments to meet this higher demand for electricity.”⁶

The IS/MND assertion that, “Construction and operation of the project would not require new or expanded electric power utilities” is clearly erroneous. Data Center additions will require extensive upgrades to SVP’s system.

⁴ **SVP 2018** – Silicon Valley Power (SVP). 2018 Integrated Resource Plan for Silicon Valley Power. November 12, 2018. Available online at:

<http://www.siliconvalleypower.com/home/showdocument?id=62481> Page 3-18

⁵ **SVP 2018** – Silicon Valley Power (SVP). 2018 Integrated Resource Plan for Silicon Valley Power. November 12, 2018. Available online at:

<http://www.siliconvalleypower.com/home/showdocument?id=62481> Page 3-18

⁶ <https://www.google.com/search?channel=tus2&client=firefox-b-1-d&q=Silicon+valley+power+upgrades+to+meet+enrgy+center+demand>

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.

CPUC Proceeding A.11-12-003: Application of PG&E for Approval of Amendments to Qualifying Facility Power Purchase Agreement with Thermal Energy Development Partnership. Decision 13-06-022 in the proceeding stated my testimony, *“Demonstrated that the Facility is aging and better priced alternatives may exist in the future. Demonstrated that the firm Capacity amendment is not cost effective. The facility is not needed to meet PG&E’s RPS Requirements in later years. The additional 5 MW of capacity is not needed to meet PG&E’s RPS goals. Better alternatives exist and an RFO should be held for additional Generation. The commission has previously allowed the price amendment to be paid from the date of execution of the contract in Resolution E-4412, E-4427, and E- 4455.”*

<http://docs.cpuc.ca.gov/SearchRes.aspx?DocFormat=ALL&DocID=70757356>

CPUC Proceeding 09-09-021: Application of Pacific Gas and Electric Company for Approval of 2008 Long-Term Request for Offer Results and for Adoption of Cost Recovery and Ratemaking Mechanisms (U 39 E) Provided Testimony as consultant for CARE. Decision D.11-03-020 credited my testimony for demonstrating that PG&E failed to follow the Commissions protocol in evaluating the environmental impacts of the project. Decision credited my testimony for demonstrating that PG&E’s demand had fallen since its procurement authorization in D. 07-12-052 and its procurement should be limited to the lower range of need. Decision concluded that my testimony demonstrated that PG&E was seeking unauthorized procurement in other CPUC proceedings. Decision credited my testimony that demonstrated that the Oakley PSA was not fairly valued or just and reasonable.

<http://docs.cpuc.ca.gov/SearchRes.aspx?DocFormat=ALL&DocID=446662>

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: Application of Pacific Gas and Electric Company for Approval of Agreements Related to the Novation of the California Department of Water Resources Agreement with GWF Energy LLC, Power Purchase Agreement with GWF Energy II LLC - Provided Testimony on behalf of CALifornians for Renewable Energy. Decision 11-01-024 credited my analysis that the, *“Upgrades were not needed because of recent developments altering the forecast in D.07-12-052. California Energy Commission’s (CEC’s) more recent 2009 forecast shows that peak demand in 2015 will be 597 MW (4.48%) lower than the 2007 forecast, CEC issued a report which forecasts that exports will be 100 MW to 1,100 MW in 2015. The CEC issued and incremental*

demand forecast which showed additional energy efficiency savings not included in forecast in D. 07-12-052.” Decision states that my testimony, “presented an analysis of the cost of the Upgrade Purchase Power Agreements (PPAs). The details of the analyses and conclusions are confidential. In general, they state that the 254 MW of incremental capacity provided the Upgrade PPAs has a substantial negative market value (as calculated by the IE) in both absolute terms and relative to other projects.”
<http://docs.cpuc.ca.gov/SearchRes.aspx?DocFormat=ALL&DocID=441638>

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.

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%

BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT

COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of Walsh Avenue Data Center

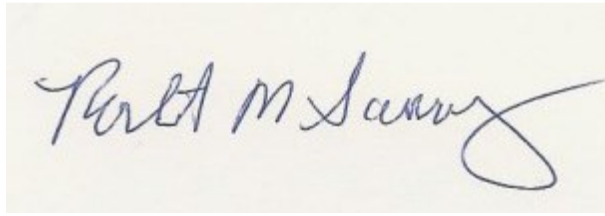
Docket Number 19-SPPE-02

Declaration of Robert Sarvey

I Robert Sarvey Declare as Follows:

1. I prepared the attached rebuttal testimony for the Walsh Avenue Data Center.
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 April 15, 2020.

A photograph of a handwritten signature in blue ink on a light-colored background. The signature is cursive and reads "Robert M. Sarvey".

Robert M. Sarvey
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