MEMORANDUM OF UNDERSTANDING
BY AND BETWEEN
THE CITY OF SANTA CLARA, CALIFORNIA
AND
SANTA CLARA UNIVERSITY

This Memorandum of Understanding ("MOU") is made by and between the City of Santa Clara, California, a chartered California municipal corporation with its primary business address at 1500 Warburton Avenue, Santa Clara, California 95050 ("City"), and Santa Clara University ("SCU"), a California Corporation, with its principal place of business located at 500 El Camino Real, Santa Clara, CA 95053. City and Santa Clara University may be referred to herein individually as a "Party" or collectively as the "Parties" or the "Parties to this Agreement."

WHERAS, the Parties signed a Letter of Intent dated October 25, 2019 wherein the City, through its Electrical Utility ("Silicon Valley Power" or "SVP") offered, and SCU accepted, a grant of a battery energy storage system ("BESS") under certain terms and conditions related to the Parties respective obligations to design, construct, install, operate, maintain, and monitor the BESS; and

WHEREAS, the Letter of Intent expressly states its provisions shall not constitute a legal or binding contract between the Parties and contemplates a future agreement governing the parties' respective obligations, including terms of equipment use, metrics for billing SCU for electricity used, site access for Silicon Valley Power, and any easements.

WHEREAS, this Memorandum reflects the Parties' continued desire to conduct a pilot project to demonstrate the use-case for battery storage systems for data centers that are instantaneous and reliable, delaying and/or avoiding the use of diesel generators as backup power ("Data Center Battery Storage Pilot Project" or "Project"). The Project will demonstrate the economic viability and flexibility of a 2.56 megawatt/5.12 megawatt hour battery energy storage system (BESS) that can be simultaneously dispatched at 2.56 megawatt capacity to support critical loads during a power quality event or outage.

WHEREAS, the Project will foster innovative programs for SVP and SCU targeted to reduce greenhouse gas (GHG) emissions and criteria pollutants. Additionally, the battery will be charged/discharged to increase renewable utilization on the grid, while also being discharged, to reduce the need for natural gas generation dispatch during the evening peak.

WHEREAS, upon completion of the Project, the Parties will jointly prepare white paper documenting the economic analysis, design, and cost breakdown of the Project, in order to share best practices and lessons learned that can be shared with the energy and utility industry community, research and academia.

WHEREAS, the Project will inform new course curriculum and capstone projects for the Engineering and Sustainability Departments at Santa Clara University jointly developed by SCU and SVP.

AGREEMENT PROVISIONS

The Parties agree as follows:

1. PROJECT DESCRIPTION

The Data Center Battery Storage Pilot Project is a pilot project between SVP and SCU to install a 2.56 megawatt/5.12 megawatt hour BESS microgrid to provide power to Harrington Learning Commons data center on SCU's campus. The BESS will be installed on SCU campus, adjacent to the east side of the Harrington Learning Commons building. Title to the BESS microgrid will be vested in SVP. SVP will design, install, operate, and maintain the BESS microgrid for a period of fifteen (15) years, plus any extensions mutually agreed upon by the Parties, after which time SCU will have the option to assume ownership of, and all operation and maintenance responsibility for, the facility. If SCU does not exercise this option, SVP will decommission and remove the BESS microgrid.

2. PROJECT DELIVERY

In order to achieve successful delivery of the Data Center Battery Storage Pilot Project, the parties agree to the project milestones outlined in Appendix A Project Milestones to this MOU, attached and incorporated herein by reference.

3. RESPONSIBILITIES OF THE PARTIES

A. Santa Clara University Responsibilities

i. SCU agrees to assist in good faith SVP and its contractors in their efforts to achieve the Project Milestones.

ii. Lease of Land:

a. SCU agrees to provide SVP with the property rights and facility access required for the Project at no cost. The Project will be installed at the site generally depicted in Appendix B Battery Energy Storage System (BESS) Site Location attached and incorporated by reference.

b. SCU agrees to discuss and negotiate in good faith a site lease, easement(s), or license(s) as may be required by the City, SVP, SVP's contractor(s), and Tesla, in order to successfully construct, install, integrate, test, commission, operate and maintain the BESS and any engineering equipment associated with the BESS. The site lease shall be for a minimum term of fifteen (15) years and shall include an option to extend for a period of five (5) additional years.

iii. Santa Clara University agrees to provide SVP with the following data:

a. Real time data in 15-minute intervals (60-minute intervals if 15-

minute data is not available) interval from the SCU Energy Management System, to include but limited to:

(1) Learning Commons Diesel generator start/run times (and testing)

(2) Learning Common Building loads

(3) Campus Solar output

(4) Fuel Cell output

b. Detailed report of power quality events, outages, or grid events impacting the SCU Learning Commons Building causing activation of diesel generator run-times.

c. MWh emissions rate from avoided diesel generator runs

d. Diesel generator avoided costs:

(1) Marginal cost to run (transportation and fuel costs)

(2) Operating and Maintenance costs

e. SCU will provide data on any changes impacting on-site generation on campus.

f. SCU will be responsible for additional data and documentation agreed upon herein and/or according to any amendments or change orders related to this Agreement.

g. SCU agrees assist SVP in gathering information for, and preparing responses to, data requests and other inquiries from governmental authorities or public records act requests that are related to or associated with the Project to support information sharing and shared learning.

B. City of Santa Clara/Silicon Valley Power Responsibilities

i. SVP agrees to execute in good faith all of its responsibilities as outlined in Appendix A Project Milestones.

ii. Purchase of the BESS and microgrid facilities.

a. SVP is responsible for the procurement of the Tesla Battery Energy Storage System (BESS). The BESS is owned and operated by SVP. The BESS is maintained by Tesla.

b. SVP is responsible for the procurement of the 15kV 600amp Padmount Grid Interconnection Center (GIC). The GIC will be installed, dressed, owned, maintained, and operated by SVP.

c. SVP is responsible for the procurement of the 2500kVA 12kV/480V Distribution Padmount step down transformer to connect the BESS to the 12kV distribution system.

d. SVP is responsible for the procurement and installation of the 15k 1/0 Al EPR cable, and associated splices, and terminations.

iii. Charge/Discharge Cycles of BESS:

a. SVP will be able to cycle the BESS during any time period of the day, and any time during the year.

b. SVP is responsible for the costs associated with the charging of the BESS, and SVP receives the cost savings associated with the discharging of the BESS. Specifically, the reduction in volumetric energy demand (kWh) during periods the BESS will be discharging will not result in a reduction in volumetric charges for Santa Clara University.

c. Should the charging of the BESS coincide with Santa Clara University's monthly peak demand charge, SVP will be responsible for the incremental demand charge impact.

d. Santa Clara University is responsible for the demand and volumetric costs associated with the its demand profile, under a business-as-usual operation (e.g. operation without the BESS in this Project)

iv. Back-up Power

v. Data exchange: SVP to provide:

a. Reduced emissions from BESS charge and discharge cycling.

b. Reduced emissions from avoided and/or delayed diesel generator runs (based on power quality events, outages, and diesel generator run-times from SCU).

c. SVP responsible for additional data and documentation agreed upon herein and/or according to any amendments or change orders related to the Project.

C. Back Up Power

In the event of a sustained outage at Santa Clara University, the BESS site level controller operates in an islanded mode, and changes the battery energy output to support SCU's Learning Commons Building during a grid outage with the available amount of energy stored in the BESS.

4. TERM OF MEMORANDUM OF UNDERSTANDING

The term of this MOU will begin on the Effective Date of this Agreement and terminate upon the completion of the Project.

5. INDEPENDENT CONTRACTORS

The Parties agree that neither is an agent or employee of the other, but independent contractors with full rights to manage their respective employees subject to the requirements of the law.

6. HOLD HARMLESS/INDEMNIFICATION

To the fullest extent permitted by law, SCU agrees to protect, defend, hold harmless and indemnify City, its City Council, commissions, officers, agents, and employees from and against any claim, injury, liability, loss, cost, and/or expense or damage, however same may be caused, including all costs and reasonable attorney's fees in providing a defense to any claim arising therefrom, for which City shall become legally liable arising from SCU's sole negligence, or in proportion to SCU's comparative fault.

To the fullest extent permitted by law, City agrees to protect, defend, hold harmless and indemnify SCU and its affiliates, directors, trustees, officers, agents, and employees, from and against any claim, injury, liability, loss, cost, and/or expense or damage, however same may be caused, including all costs and reasonable attorney's fees in providing a defense to any claim arising therefrom, for which SCU shall become legally liable arising from City's sole negligence, or in proportion to City's comparative fault.

7. INSURANCE

SCU will provide and maintain in force during the term of this Agreement, at its sole cost and expense, insurance in amounts reasonably necessary to protect it against liability arising from any and all negligent acts or incidents caused by SCU's contractors, sub-contractors and employees. Coverage under such professional and commercial general liability insurance will be not less than one million dollars ($1,000,000) for each occurrence and two million dollars ($2,000,000) in the aggregate. Such coverage will be obtained from a carrier rated A or better by AM Best or a qualified program of self-insurance. SCU will maintain and provide evidence of worker's compensation coverage as required by law. SCU will provide City upon request with evidence of the insurance or equivalent self-insurance required under this paragraph.

City will provide and maintain in force during the term of this Agreement, at its sole cost and expense, insurance in amounts reasonably necessary to protect it against liability

arising from any and all negligent acts or incidents caused by City's employees. Coverage under such professional and commercial general liability insurance will be not less than one million dollars ($1,000,000) for each occurrence and two million dollars ($2,000,000) in the aggregate. Such coverage will be obtained from a carrier rated A or better by AM Best or a qualified program of self-insurance. City will maintain and provide evidence of worker's compensation coverage as required by law. City will provide SCU upon request with evidence of the insurance or equivalent self-insurance required under this paragraph.

8. FAIR EMPLOYMENT

The Parties will comply with all applicable Federal, State, and local non-discrimination laws and maintain all licenses required by State, Federal and local governments and regulatory agencies.

9. AMENDMENTS

This MOU may only be modified by a written amendment duly authorized and executed by the Parties to this MOU.

[Section 10 and signatures follow on next page.]

10. COUNTERPART/FACSIMILE SIGNATURE

This MOU may be executed in counterparts, each of which will be deemed to be an original, but both of which will constitute one and the same instrument; and, the Parties agree that signatures on this MOU, including those transmitted by facsimile, will be sufficient to bind the Parties.

The Parties acknowledge and accept the terms and conditions of this Agreement as evidenced by the following signatures of their duly authorized representatives. The Effective Date is the date that the final signatory executes the Agreement. It is the intent of the Parties that this Agreement will become operative on the Effective Date.

CITY OF SANTA CLARA, CALIFORNIA
a chartered California municipal corporation

APPROVED AS TO FORM:

Dated: _____

BRIAN DOYLE
City Attorney

DEANNA J. SANTANA
City Manager
1500 Warburton Avenue
Santa Clara, CA 95050
Telephone: (408) 615-2210
Fax: (408) 241-6771

"City"

SANTA CLARA UNIVERSITY
CALIFORNIA CORPORATION

Dated: _____
By: _____
(Signature of Person executing the Agreement on behalf of Santa Clara University)
Name: _____
Title: _____
Local Address: _____

"*Santa Clara University*"

APPENDIX A

Project Milestones

(Tasks below may occur in parallel.)

1. **Memorandum of Understanding (MOU) Agreement**
   - **a.** Silicon Valley Power (SVP) to draft MOU agreement for review and approval by the City of Santa Clara and Santa Clara University (SCU) outlining partnership goals and responsibilities on the Data Center Battery Storage Pilot Project.

2. **Complete Schematic Design**
   - a. SVP's engineering firm (BreitGrid) will provide a complete design and project management for implementing the battery energy storage system (BESS) along with the SVP-owned and maintained distribution equipment to the Harrington Learning Commons at Santa Clara University (SCU).
   - **b.** BreitGrid will work with its sub-contractors and SVP to develop and finalize a schematic design drawing set that will include electrical design, civil design, and architectural design.

3. **Integration Services**
   - **a.** SVP will retain a qualified contractor to provide Integration Services for the BESS and microgrid.
   - **b.** Integration Services work will include: the design and integration of multiple systems to operate within the microgrid, programming of various protection and control systems in the microgrid, development of the communications architecture and protocol design, configuration of microgrid and system components, finalization of protection, control and communications scheme of the microgrid system, testing and commissioning of microgrid system, and training of the microgrid components and microgrid system support.

4. **Complete Construction Documents and Public Works Bid**
   BreitGrid will finalize the construction documents with its sub-contractors, subject to SVP and SCU review and approval, and will then provide to the City and SVP for permit approval and bidding.

5. **General Contractor Selection from Public Works Bid and Final Contract Negotiation**
   - **a.** SVP will select General Contractor based on lowest cost bid.
   - **b.** SVP will finalize the contract and return to Council to request authorization to execute the Public Works Project Agreement.

6. **Permitting through City of Santa Clara**
   BreitGrid will submit the construction documents to the City of Santa Clara.

7. **Site Construction by SVP's Contractors**

- **a.** SVP and its Contractors will manage the various consultants and contractors to complete the site construction.
- **b.** SCU will provide support as needed to provide adequate access and lay down space during pre-construction site visits and site construction.

8. Tesla BESS and Microgrid Installation and Final Termination

- **a.** SVP's Contractors will construct, install, and integrate the BESS and microgrid, inclusive of the SCU Learning Commons Building to allow the BESS to operate in parallel with the grid and in an islanded mode.
- **b.** BESS vendor will test and commission the BESS.
- **c.** SVP's Contractor will test and commission each sub-system and microgrid system.
- **d.** SCU will provide support as needed to provide adequate access and lay down space during delivery of BESS and engineering equipment, testing, commissioning, and inspection verification.

APPENDIX B

Battery Energy Storage System (BESS) Site Location