21-443 **Agenda Date: 8/24/2021**

REPORT TO COUNCIL

SUBJECT

Actions on agreements associated with Battery Energy Storage System (BESS) Project at Santa Clara University (SCU), Authorizing City Manager to
1. Execute a Memorandum of Understanding (MOU) with SCU;
2. Negotiate and execute a Property Lease Agreement with SCU;
3. Execute BESS Sale and Purchase Agreement with Tesla, Inc. (Tesla)
4. Execute BESS Services Agreement with Tesla

COUNCIL PILLARS

Promote Sustainability and Environmental Protection
Deliver and Enhance High Quality Efficient Services and Infrastructure

BACKGROUND

On June 18, 2018, the Bay Area Air Quality Management District (BAAQMD) awarded a Climate Protection Grant in the amount of $300,000 to SVP for a Battery Energy Storage System (BESS) project. The purpose of the BESS project is to demonstrate the use-case for lithium-ion batteries as longer-duration uninterruptible power supply for data centers that are instantaneous and reliable, delaying or avoiding the use of diesel generators as emergency backup power.

BAAQMD selected SVP's pilot project based on the strength of the evaluation criteria that makes progress towards achieving greenhouse gas (GHG) reductions for the City of Santa Clara, the project's focus in disadvantaged communities, and meeting the air quality goals for the State and local jurisdictions. BAAQMD encouraged public agency applicants to collaborate with external partners. As such, SVP collaborated with Tesla on the BAAQMD grant. This collaboration increased the strength and feasibility of the strategic approach of the project making the proposed project more competitive for a grant award. The grant will be used to fund the procurement of the Tesla BESS. As part of the partnership for the BAAQMD grant, Tesla will be providing a 20-year operating and maintenance (O&M) agreement "in-kind" which will cover the entire operating life of the BESS.

DISCUSSION

The pilot project will demonstrate the economic viability and flexibility of a 2.56 megawatt/5.12 Megawatt-hour BESS that can be dispatched at 2.56 megawatt capacity to support critical loads during a power quality event, outage, or in the unlikely event that a PG&E Public Safety Power Shutoff (PSPS) event impacts Santa Clara. In the case of a utility outage, the BESS will stop providing grid services and switch to backup operations for the Santa Clara University campus data center avoiding the use of the backup diesel generator, and reducing diesel generator start times.

Financial and Environmental Benefits
The project will achieve a number of goals:

- Reduction in use of diesel backup power generators
- GHG emissions reductions through the increased use of renewable energy on the grid to charge the battery
- Reduction on the use of natural gas generation dispatch during the evening peak demand hours.

Overall the project aims to demonstrate that batteries can be a viable replacement for traditional data center backup diesel generators (and applicable to other land uses); and demonstrate that the BESS can also respond to wholesale energy market by charging the battery during low cost energy hours, act as a peak shaving instrument during grid constrained days, and balance SVP's distribution grid.

The BESS also provides an economic value because it allows SVP to procure power during lower priced hours and increases renewable energy consumption on SVP's grid through re-charging during the hours with the most renewable energy on the CAISO grid. Since SVP will own and operate the BESS, the operation of the BESS is netted from the customer's retail meter, which will result in charges or credits to the SCU's monthly retail bill.

Over the 15-year warranty of the BESS, the total installed costs will be recovered both from the BAAQMD grant and from multiple value streams associated with the project including: generation capacity (the BESS contributes to system resource adequacy by discharging during peak demand hours and scarcity events) and revenue generated from energy price arbitrage (the battery can be charged during low -or negative- priced hours and discharged during higher priced hours). The project is expected to break-even over the 15-year period.

Staff recommends that the City Manager is authorized to execute two agreements with Tesla a BESS Sale and Purchase Agreement (USA) to purchase the BESS and a BESS Services Agreement for twenty years.

MOU and Lease with Santa Clara University

SVP evaluated data center partners based on their aligned goals with the City of Santa Clara and BAAQMD's renewable energy and climate goals, and a high potential for GHG emissions reduction. In October 2019, SCU issued a Letter of Intent to partner with SVP on the implementation of the pilot project. To support the partnership, staff recommends that the City Manager is authorized to negotiate and execute a 15-year lease to host the Tesla BESS on the SCU campus. In consideration for the benefits it will receive from the project, SCU has agreed to lease the property to the City at no cost. Staff is currently working with the City Attorney's Office to develop a ground lease to allow the City to install and operate the BESS on SCU's campus for the term of the project.

In addition, staff recommends that the City Manager is authorized to execute a MOU outlining the terms and conditions of the collaboration between SCU and SVP including: the operations of the BESS, customer billing, data exchange, development of curriculum to inform new course curriculum and capstone projects at SCU jointly developed by SCU and SVP, and agreement to publish a joint white paper on the pilot project for industry stakeholders. The pilot project and collaboration with SCU will foster innovation and develop a pilot program for new data center builds in the Bay Area, focusing on the City of Santa Clara as a leader in innovative sustainable solutions.

ENVIRONMENTAL REVIEW

Council action on this item is exempt from review under section 15303, new construction or conversion of small structures (including installation of small new equipment and facilities).

FISCAL IMPACT

The BESS Sales and Purchase Agreement with Tesla, Inc. has a not-to-exceed cost of $1,657,875 for the procurement of the Tesla BESS. Funds are available in the Clean Energy and Carbon Reduction capital project (project # 2398) budgeted in the Electric Utility Capital Fund to support the purchase of the BESS.

The purchase BESS will occur through three milestone payments, as detailed in the "Invoice Schedule" of the Tesla BESS Sales and Purchase Agreement. The first payment of $497,362 will occur in FY 21/22 and the second and third payment of $497,362 and $663,150, respectively, will occur in FY 22/23.

Although SVP will finance the BESS up-front, SVP modelled the expected value to be generated through the BESS operations in response to wholesale energy market signals, distribution balancing and reliability needs, and the BAAQMD grant. The BESS procurement costs will be recovered through the BESS operating schedule. The project is expected to break even over the 15-year expected life.

The MOU, Lease Agreement, and BESS Services Agreement with Tesla, Inc. will have no fiscal impact.

COORDINATION

This report has been coordinated with the Finance Department and City Attorney's office.

PUBLIC CONTACT

Public contact was made by posting the Council agenda on the City's official-notice bulletin board outside City Hall Council Chambers. A complete agenda packet is available on the City's website and in the City Clerk's Office at least 72 hours prior to a Regular Meeting and 24 hours prior to a Special Meeting. A hard copy of any agenda report may be requested by contacting the City Clerk's Office at (408) 615-2220, email clerk@santaclaraca.gov <mailto:clerk@santaclaraca.gov> .

RECOMMENDATION

1. Authorize the City Manager to execute a Memorandum of Understanding with Santa Clara University;
2. Authorize the City Manager to negotiate and execute a Lease Agreement with Santa Clara University;
3. Authorize the City Manager to execute a BESS Sales and Purchase Agreement with Tesla, Inc.;
4. Authorize the City Manager to execute a BESS Services Agreement with Tesla, Inc.; and
5. Authorize the City Manager to make minor changes to the agreements subject to approval by City Attorney.

Reviewed by: Manuel Pineda, Chief Electric Utility Officer
Approved by: Deanna J. Santana, City Manager

ATTACHMENTS

1. Battery Storage Campus Location Map
2. Proposed Memorandum of Understanding by and between the City of Santa Clara and Santa Clara University
3. Proposed Tesla Battery Energy Storage System (BESS) Sale and Purchase Agreement (USA)
4. Proposed Tesla Battery Energy Storage System (BESS) Services Agreement (USA)