

City of Piedmont
COUNCIL AGENDA REPORT

DATE: November 7, 2022

TO: Mayor and Council

FROM: Sara Lillevand, City Administrator

SUBJECT: Consideration of a Resolution Authorizing the City Administrator to Pursue Deployment of Solar and Battery Energy Systems at Critical Municipal Facilities in Partnership with East Bay Community Energy and Commit to Installations of Systems through a Standard Power Purchase Agreement

RECOMMENDATION

Adopt a resolution authorizing the City Administrator to continue pursuing widespread deployment of solar and battery energy storage systems at critical municipal facilities in partnership with the City's public power provider, East Bay Community Energy (EBCE), and commit to installing these systems through a standard Power Purchase Agreement with EBCE should the City determine that the project results in benefits to the City budget and the community.

EXECUTIVE SUMMARY

East Bay Community Energy (EBCE), Piedmont's local electricity generation provider, has the primary objectives of providing its member agencies local energy control and oversight, providing cleaner electricity at competitive rates, driving investment in renewable energy, and improving the resilience of local communities. With these objectives in mind, EBCE is offering its Joint Power Authority (JPA) members, including the City of Piedmont, the opportunity to participate in their Critical Municipal Facilities Program, a procurement program dedicated to deploying solar and battery energy storage systems at critical municipal facilities through a standard Power Purchase Agreement (PPA). Participating in this program would increase the potential for on-site solar generation, advance Piedmont's climate action goals, and ensure that more of Piedmont's critical facilities are prepared for PG&E Public Safety Power Shutoff events, rolling blackouts, and other potential power outages such as those caused by a major earthquake. EBCE is requesting that agencies interested in participating in the Critical Municipal Facilities Program adopt a resolution indicating intent to pursue procurement of solar and battery storage at municipal facilities. If PPA pricing under this program is higher than anticipated or if the project terms are found to be otherwise unfavorable to the City, the City is under no obligation to proceed with installation.

BACKGROUND

Solar and battery energy storage systems provide clean, renewable electricity to buildings on a daily basis and can reduce the time-of-use charges during peak pricing periods (generally from 4pm to 9pm). The systems provide enhanced resilience benefits, allowing municipal critical

facilities to continue to operate on a limited basis during a power outage using the electricity stored and generated onsite. Deployment of solar and battery energy storage systems at critical municipal facilities aligns with the City's greenhouse gas emissions reduction goals set forth in the Piedmont Climate Action Plan (CAP) 2.0, and it increases the resiliency of those facilities for critical and emergency operations. The City of Piedmont does not currently own or operate any solar and battery storage systems but has explored procurement options in the past. In 2011, the Council approved an agreement with the Cities of Albany, El Cerrito, and San Pablo for the purpose of jointly soliciting proposals for the procurement of municipal solar power at sites in each of the cities. Feasibility studies were completed for the following four sites in Piedmont: Corporation Yard, City Hall/Fire Department Roof, Veterans Hall/Police Department Roof, and Recreation Department. The results of the study indicated that the Corporation Yard was the most feasible site due to overall cost effectiveness and alignment with other federal environmental requirements. In 2012, the Council approved the installation of a solar photovoltaic (PV) system at the Corporation Yard, but it later proved cost-prohibitive due to additional costs required for structural enhancements at the site. In 2016 and 2017, City staff received updated estimates for solar installations on municipal buildings. The results of the feasibility studies again determined that the Corporation Yard provided the best potential for a viable installation of a photovoltaic system, relative to other municipal buildings. However, the Corporation Yard was not very visible to the public and necessitated costly structural roof improvements to support a solar system. In addition, the inception of the project was prior to the Council's decision to enroll all municipal accounts into East Bay Community Energy's (EBCE) 100% Renewable electricity service. The Council therefore decided not to move forward with a solar project at the Corporation Yard at that time.

EBCE is a not-for-profit public agency formed in 2016 that supplies local electricity powered by cleaner, greener energy at lower rates to Alameda County customers. EBCE procures electricity from clean, renewable sources such as solar and wind, while PG&E continues to deliver power, handle customer billing, and respond to new service requests. EBCE also reinvests its earnings back into the community to create local green energy jobs, local programs, and clean power programs. EBCE is currently collaborating with its Joint Powers Authority (JPA) members in Alameda County, including the City of Piedmont, to identify a cost-effective portfolio of solar and battery systems for municipal buildings for an upcoming Request for Offers (RFO) for Phase II of their Critical Municipal Facilities Program. EBCE recently completed Phase I RFO process of the program with four other member agencies (Cities of Berkeley, Fremont, Hayward, and San Leandro). EBCE is offering to act as the counterparty to a Power Purchase Agreement (PPA), which should streamline the procurement process, reduce risk to the PPA provider, reduce the amount of time required by City staff, and bring down overall project costs – compared to a traditional PPA where the City would conduct its own procurement and contract directly with a PPA provider.

DISCUSSION

EBCE's Critical Municipal Facilities Program would provide the City with an opportunity to receive bids for new distributed energy systems at a number of public facilities with the goals of further reducing greenhouse gas emissions and utility bills as well as increasing the City's energy resiliency. The program includes an upfront assessment of municipal facilities conducted by an independent engineer (hired by EBCE) to identify potential roof, structural, or electrical capacity upgrades that might be required to install solar and storage systems. EBCE will cover the upfront

cost of the independent engineering analyses, which will be paid back as part of the agreed-upon PPA rate on utility bills only if the City ultimately proceeds with a cost-effective project. These analyses, alongside staff input, will identify which sites are the most technically viable portfolio of facilities for inclusion in Phase III of the program. Sites which require upgrades could potentially be included in future procurement phases. EBCE will also conduct a financial analysis to determine the cost-effectiveness of the proposed sites, based on actual electricity load, current and projected electricity costs, solar potential, and site conditions, including the cost of any required facility upgrades. EBCE and the City will review the results of both the engineering and financial analyses to confirm that the City's Phase III sites deliver benefits to the City budget and the community. Once the analyses are complete and the Phase III facility list is finalized for all participating Cities, the selected facilities will be included in the RFO. The City's facilities that are selected for the RFO will be able to utilize the electricity generated from the installed solar and battery systems on a daily basis and in the case of a grid outage. The solar and storage equipment will be owned, operated, and maintained by the third-party PPA provider under its contract with EBCE. The terms of the PPA will be agreed upon by the City and EBCE prior to EBCE issuing an RFO, though some PPA terms may need to be revisited based on the RFO response. EBCE plans to release the RFO for a PPA on behalf of its Phase III municipal partners in late 2023. EBCE would be the signatory partner with the PPA, holding a contract with the third-party PPA provider under its contract with EBCE. The goal is to deploy the systems in 2024.

The benefits of this project include the following:

- Local, renewable energy and enhanced community resilience at municipal facilities with no capital costs for installation.
- A feasibility analysis of solar and battery systems at critical municipal facilities.
- An independent engineering analysis and cost estimate of potential structural, roof condition and electrical capacity upgrades necessary to advance deployment of solar and battery systems.
- A streamlined procurement process, where EBCE would contract with the PPA on behalf of its municipal JPA members.
- Solar-only systems at some non-critical municipal facilities with no capital cost for installation.
- Operation and maintenance contracts for the solar and battery equipment and systems wrapped into the PPA contract.
- Daily load management from solar and batteries will shift energy use away from peak usage times, when electricity has higher costs and carbon content.
- Improved resilience with renewable back-up power when the electrical grid is down as an alternative to diesel-powered generators.

CONSISTENCY WITH THE PIEDMONT CLIMATE ACTION PLAN 2.0

Adoption of the resolution is consistent with general priorities and specific objectives discussed in the City's Climate Action Plan 2.0. The CAP 2.0 calls for the Piedmont community to reduce its in-territory emissions 40% relative to its 2005 baseline by 2030 and 80% relative to the 2005 baseline by 2050. The CAP 2.0 identifies building energy as one of the main sources of emissions

that must be addressed to meet this goal. The following goals, objectives, measures, and actions listed in the CAP 2.0 are consistent with the recommended resolution:

2030 Municipal Goal: Acquire 100% renewable electricity and install rooftop solar PV and other types of solar energy systems.

Objective BE-1: Reduce emissions from City buildings and energy supply

- *Measure MUN-2.1: Reduce energy use in City buildings*
 - *Action MUN-2.1A: When remodeling or repairing City buildings, include opportunities for energy efficiency retrofits or green building certification.*
- *Measure MUN-2.3: Increase the amount of renewable energy on-site and through the grid*
 - *Action MUN-2.3A: Evaluate the potential for and install cost-effective renewable energy systems on City properties.*
 - *Action MUN-2.3B: When constructing new buildings or replacing and structurally upgrading roofs, build them to be solar-ready or include the installation of solar energy systems in the bid process.*

FISCAL IMPACT

This resolution does not have any fiscal impacts at this time. It does however commit the City of Piedmont to continue to pursue procurement for solar and battery systems through a PPA with EBCE should the City determine that the cost-effectiveness of the project portfolio results in benefits to the City's budget and service to the community. With a PPA model, a PPA provider pays for the installation, operations, and maintenance of the solar and battery energy storage systems, and the City pays an agreed upon price per kilowatt-hour (kWh) for power generation. The City will contract with EBCE to pay the PPA provider for the power that is generated and used by the installed systems. All the terms of the PPA will be agreed upon by the City and EBCE prior to EBCE issuing the RFO, though some PPA terms may need to be revisited based on RFO response. If PPA pricing under this program does not deliver savings, or if the project terms are found to be otherwise unfavorable to the City, the City is under no obligation to proceed with installation.

CONCLUSION AND NEXT STEPS

Should the Council agree to adopt the resolution, City staff will work with EBCE to determine potential sites for inclusion and analysis in the Critical Municipal Facilities Program. If sites are deemed cost-effective following a site analysis, City staff would return to the Council with recommendations and seek review and approval of EBCE's PPA agreement.

By: Alyssa Dykman, Sustainability Program Manager

ATTACHMENT

Exhibit A Page 5

Resolution Authorizing Participation in EBCE's Critical Municipal Facilities Program

RESOLUTION _____**A RESOLUTION AUTHORIZING THE CITY ADMINISTRATOR TO PURSUE DEPLOYMENT OF SOLAR AND BATTERY ENERGY SYSTEMS AT CRITICAL MUNICIPAL FACILITIES IN PARTNERSHIP WITH EAST BAY COMMUNITY ENERGY AND COMMIT TO INSTALLATIONS OF SYSTEMS THROUGH A STANDARD POWER PURCHASE AGREEMENT**

WHEREAS, the City Council has demonstrated its commitment to a sustainable and resilient future through its policy goals and actions, including energy reduction, clean energy programs, and the expansion of local renewable power supply; and

WHEREAS, the City of Piedmont adopted its first Climate Action Plan on March 15, 2010, with the goal of reducing both municipal and community-wide greenhouse gas (GHG) emissions 15% below 2005 levels by 2020; and

WHEREAS, the City Council adopted the Climate Action Plan 2.0 on March 19, 2018, putting forth an implementation plan to reduce both municipal and community-wide GHG emissions 40% below 2005 levels by 2030 and 80% below 2005 levels by 2050; and

WHEREAS, a Community Choice Aggregation program is a mechanism by which local governments assume responsibility for providing electrical power for residential and commercial customers in their jurisdiction in partnership with local commercial energy purveyors and owners of transmission and distribution facilities, which in the case of Alameda County is Pacific Gas & Electric Co.; and

WHEREAS, on November 21, 2016, the City Council adopted Ordinance 726 N.S. authorizing Piedmont's participation in the East Bay Community Energy Authority (EBCE), development of the EBCE Community Choice Aggregation program, and authorized implementation of EBCE as Piedmont's Load Serving Entity; and

WHEREAS, on June 4, 2018, the City Council adopted Resolution No. 41-18 selecting EBCE's 100% Renewable electric service plan for all municipal accounts; and

WHEREAS, the City of Piedmont aims to provide state-of-the-art, well-maintained infrastructure, amenities and facilities, creating a resilient, safe, connected and prepared city capable of becoming a regional leader in addressing climate change and protecting the environment; and

WHEREAS, solar and battery energy storage systems provide clean, renewable electricity, reduce time-of-use charges during peak pricing periods, and provide resilience benefits allowing critical facilities to operate on a limited basis during a power outage; and

NOW, THEREFORE BE IT RESOLVED that the City Council authorizes the City Administrator to continue pursuing widespread deployment of solar and battery energy storage systems at critical municipal facilities in partnership with EBCE, and should the City determine that the project results in benefits to the City budget and to the community, commits to installing these systems through a standard Power Purchase Agreement with EBCE.

[END OF RESOLUTION]