



AGENDA REPORT

TO: Edward D. Reiskin
City Administrator

FROM: Joe DeVries
Deputy City Administrator

SUBJECT: Deployment Of Solar And Battery
Energy Systems In Partnership With
East Bay Community Energy

DATE: November 17, 2022

City Administrator Approval

Date: Dec 6, 2022

RECOMMENDATION

Staff Recommends That The City Council Adopt A Resolution Authorizing The City Administrator To Enter Into An Agreement With East Bay Community Energy To Evaluate The Potential For Solar And Battery Storage Systems On Municipal Facilities To Provide Energy Resilience And Clean Energy.

EXECUTIVE SUMMARY

East Bay Community Energy (EBCE), Oakland'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 Oakland (City), the opportunity to participate in a new procurement program, the Critical Municipal Facilities Procurement Program (Program), to deploy solar and battery energy storage systems at critical municipal facilities. Participating in this opportunity would advance Oakland's climate and resilience goals, provide utility cost stability, and ensure that more of Oakland'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 disasters such as heat waves, fires, and earthquakes.

EBCE is requesting that agencies interested in participating in the Program adopt a resolution indicating intent to evaluate the procurement of solar and battery storage at municipal facilities. If the resolution is approved, Oakland would join three other member agencies (Pleasanton, Livermore, and Emeryville) in the second phase of EBCE's procurement, with Fremont, Hayward, San Leandro, and Berkeley already participating in the program's first phase.

BACKGROUND / LEGISLATIVE HISTORY

Solar and battery energy storage systems provide clean, renewable electricity to buildings and can reduce time-of-use energy costs during peak pricing periods. In addition, the storage systems create resilience benefits, allowing critical facilities to continue to operate on a limited basis during a power outage using clean electricity stored and generated onsite, reducing dependency on backup diesel generators for back-up power. Deployment of solar and battery energy storage systems at critical municipal facilities aligns with the City's greenhouse gas emissions reductions goals and resilience goals as set forth in its Equitable Climate Action Plan. It also supports Oakland's emergency response programs.

The City of Oakland has installed relatively few solar systems on municipal buildings due to high up front costs and maintenance needs. In 2005, the City installed a 372 kilowatt (kW) system atop the Oakland Ice Center and a 760 kW system atop the Municipal Service Center in the Coliseum Business Park. These systems are owned and operated by the City and require a large amount of money up front. Other ways of managing costs can include using a Power Purchase Agreement (PPA), whereby a third party owns and maintains the systems and the City pays for the energy generated by the systems at a pre-negotiated price that is less than the price of grid-based electricity supplied by the utility.

EBCE formed in 2016 as a JPA to provide cleaner, greener energy at lower rates to Alameda County customers. EBCE started providing electricity to commercial and municipal accounts in June 2018 and to residential customers in November 2018. In July 2018, the EBCE Board of Directors, which includes Oakland City Council Member Dan Kalb, approved a Local Development Business Plan (LDBP) identifying several strategies to direct investments throughout Alameda County to build renewable energy generation, create local jobs, and help member cities reduce greenhouse gas (GHG) emissions.

As part of its LDBP implementation efforts, EBCE is collaborating with its JPA members, including the City, to identify a cost-effective portfolio of solar and battery energy storage projects for municipal buildings for an upcoming Request for Proposals (RFP) which will identify a PPA provider(s) and project installation teams. Under the Program, EBCE would provide an upfront assessment of municipal facilities 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 and act as the counterparty for a standardized PPA contract between a PPA vendor and its JPA partner municipalities. As opposed to a traditional PPA where the City conducts its own procurement and holds a contract directly with the PPA provider, EBCE would represent multiple jurisdictions and a large portfolio to streamline the procurement process, reduce risk, and bring down costs.

ANALYSIS AND POLICY ALTERNATIVES

The EBCE Program would provide the City with an opportunity to receive bids for 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. If the Program is

successful in generating cost-effective bids for new solar and battery energy storage systems, it will advance Oakland's goals of creating resilience hubs and reducing its GHG footprint.

An alternative strategy to increase energy resilience at City facilities is to pursue the purchase of solar panels and battery storage in a case-by-case basis as part of the City's Capital Improvement Program. This strategy would require significant additional funding. It would also require additional support and training for the City's Public Works team related to maintenance of solar panels and batteries. This alternative strategy would likely result in fewer facilities being outfitted with solar panels and batteries. The Oakland Public Works staff would also be required to remove equipment at the end of its useful life. Under the EBCE Program, a third party would be responsible for the equipment removal.

The proposed resolution supports several citywide priorities. Providing backup power in community facilities during emergencies supports the priority of **holistic community safety** by allowing residents to charge their electronic devices, refrigerate medicines, and access information. The clean energy generated by solar panels at City facilities supports the priority of **sustainable infrastructure**. The Program will allow the community to rely on trusted city facilities during power outages and emergencies, supporting the priority of **responsive, trustworthy government**.

FISCAL IMPACT

The proposed resolution does not have fiscal impacts. It commits the City to work through the EBCE Program for procurement for solar and battery energy storage systems using 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 for power generated. 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. There is therefore no fiscal risk from adopting the resolution.

PUBLIC OUTREACH / INTEREST

The City has conducted extensive outreach around resilience hubs and the need for backup power. Community members have repeatedly stressed the need for access to electricity in the event of an emergency to refrigerate medicines, to charge communications devices, and for public safety. In the case of a large earthquake or other disaster, access to electricity will be critical to recovery.

COORDINATION

Staff from the City Administrator's Office, Emergency Services Management Division, the City Attorney and Budget Bureau. The Capital Improvement Program will work with EBCE to identify critical facilities for evaluation. To ensure equitable distribution of solar and battery systems, staff will provide EBCE with guidance based on the Public Works Equity Committee and the Racial Equity Impact Assessment + Implementation Guide that was adopted alongside the Equitable Climate Action Plan.

SUSTAINABLE OPPORTUNITIES

Economic: Participation in the Program has the potential to lower energy costs for the City. The program would allow the City to purchase clean power at a set rate, which would protect against price volatility. The use of battery storage would allow City facilities to avoid purchasing electricity from the grid during peak pricing hours. Using the solar and battery systems would allow the City to avoid costs associated with purchase and operation of diesel fuel generators.

Environmental: Using solar and battery storage at critical facilities with high energy usage would lower Oakland's GHG emissions. These systems would replace diesel generators, which cause localized air pollution and noise pollution.

Race & Equity: Participation in this Program would provide backup power to City facilities in frontline communities that often do not have access to backup power available at home. This Program would increase the resilience of frontline communities in the face of natural disasters and the effects of climate change. Providing access to backup power for food distribution, air filtration, air conditioning, and first aid will have positive public health impacts in frontline communities. Facilities for solar panels and battery will be selected in part according to the City's equity screening tools to ensure distribution in these neighborhoods as discussed in the Coordination section above.

ACTION REQUESTED OF THE CITY COUNCIL

Staff Recommends That The City Council Adopt A Resolution Authorizing The City Administrator To Enter Into An Agreement With East Bay Community Energy To Evaluate The Potential For Solar And Battery Storage Systems On Municipal Facilities To Provide Energy Resilience And Clean Energy.

For questions regarding this report, please contact Daniel Hamilton, Sustainability Manager, at 510-238-6179.

Respectfully submitted,



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