



Legislation Details (With Text)

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Presentation from East Bay Community Energy on a Proposed Partnership with the City of San Leandro for Solar and Battery Energy Storage Systems at Various City Facilities

Recommendation

Staff is recommending that the Facilities & Transportation Committee review the information and provide direction for staff to bring a resolution for consideration at the May 17, 2021 City Council meeting.

Background

Installation of solar and battery energy storage systems at critical municipal facilities is a goal of the upcoming Draft Climate Action Plan, in addition to an 'Item 14' City Council request for staff to investigate its feasibility. On a day-to-day basis, solar arrays reduce greenhouse gas emissions and battery storage allows for a shift of energy usage from peak times, thereby reducing the need for gas-fired power plants to come online to meet demand. During power outages, solar and battery energy storage systems (BESS) increase community resilience and lessen the need for diesel generators for back-up power.

In 2020, East Bay Community Energy (EBCE) was awarded a Bay Area Air Quality Management District (BAAQMD) grant to identify critical facilities in Alameda County and conduct preliminary assessments for back-up power from solar and battery energy storage systems at member agency sites. EBCE hired ARUP Engineering Company as a technical consultant to complete a facility screening process. Public Works staff submitted a list of critical facility sites for analysis. Each facility was scored according to four screening criteria:

- *Hazard* score (accounts for the range and severity of hazards faced by each site according to its location);
- *Service* score (ranks facilities based on number of people served in the immediate area);
- *Priority Zone* score (additional recognition for sites located within either Disadvantaged

Communities (DAC) zones, Low Income zones, or both); and

- *Solar Feasibility* (high-level analysis of solar photovoltaic (PV) feasibility based on roof area and shading).

EBCE is collaborating with its Joint Power Authority (JPA) members in Alameda County, including the City of San Leandro, 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 Power Purchase Agreement (PPA) provider(s) and project installation teams. EBCE is piloting a new procurement model in which they would 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 would conduct its own procurement and hold a contract directly with the PPA provider, having EBCE representing multiple jurisdictions and a large portfolio will streamline the procurement process, reduce the City's risk, and bring down costs.

Across all of EBCE's service area more than 300 critical municipal facilities were analyzed to determine the feasibility of solar and battery energy storage systems to meet critical loads in time of grid outages. Public Works staff contributed to this initial portfolio by submitting a list of critical municipal facilities to EBCE. From that list, nine facilities are currently being considered as part of EBCE's Phase I procurement project portfolio. An additional four municipal buildings are being evaluated for solar-only installations, without back-up battery energy storage, to increase the cost-effectiveness of the City's overall project portfolio.

<u>Facility</u>	<u>BESS + Solar</u>	<u>Solar-Only</u>
Fire Station #9	X	
Fire Station #10	X	
Fire Station #11	X	
Fire Station #12	X	
Marina Comm. Cntr.	X	
Main Library	X	
City Hall	X	
Police Bld.	X	
Senior Comm. Cntr.	X	
WPCP		X
Downtown Garage		X
Manor Library		X
Public Works		X

Fiscal Impacts of Recommendation

The proposed resolution being requested by EBCE does not have any fiscal impacts at this time. It does however commit the City to continue to pursue procurement for solar and BESS through a PPA with EBCE. 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 generated.

As proposed, the solar and BESS equipment would be owned, operated and maintained by the third-party PPA provider under its contract with EBCE. The terms of the PPA would be brought back to the City Council for consideration prior to EBCE issuing an RFP for vendor services.

EBCE is offering this first-of-its-kind group procurement model to all of its local government partners across Alameda County as a public benefit to increase community resilience at critical facilities. EBCE is reducing risks to all parties by hiring an independent engineer to complete an analysis for buildings currently in the Phase I portfolio and acting as the counterparty to the PPA which will bring down costs, streamline procurement, and reduce the amount of time required by City staff. Participating in this opportunity increases the potential for on-site solar generation, advances City of San Leandro towards its goal of building electrification (as identified in the Draft Climate Action Plan), and ensures that more of the City's critical facilities are prepared for PG&E Public Safety Power Shutoff (PSPS) events, rolling blackouts and other potential power outages like those caused by a major earthquake.

Next Steps

EBCE plans to release the RFP for a PPA provider on behalf of its governmental partners in mid-to-late 2021. EBCE would be the counterparty on the PPA, holding the contract with the vendor and a PPA contract with each individual participating local government. The goal of deployment of the systems is late 2021 to early 2022.

The benefits of this project include:

- An EBCE analysis to determine the feasible capacity of solar and battery energy storage systems at critical municipal facilities;
- An independent engineering assessment and cost estimate of potential structural, roof condition and electrical capacity upgrades necessary to advance project deployment;
- Local, renewable energy and enhanced resilience at critical municipal facilities;
- A streamlined procurement process, where EBCE acts as the counterparty to the PPA on behalf of its JPA member local government, including the City of San Leandro. This innovative pilot procurement model is designed to lower risk and costs for industry vendors and participating cities;
- Enhanced community resilience through solar and battery energy storage systems at critical municipal facilities with no capital costs for installation;
- Solar-only systems at some non-critical municipal facilities with no capital cost for installation;
- Operation and maintenance contracts for the solar and battery energy storage systems wrapped into the PPA;
- Daily building energy load management from solar and battery energy storage system to help balance time-of-use charges; and,
- Improved resilience with renewable back-up power when the PG&E transmission and distribution system (e.g., the grid) is down as an alternative to diesel generators.

Alternative Actions Considered

The City could choose to not continue to pursue this joint procurement with EBCE and not install solar and battery energy storage systems at critical facilities via this method of delivery. Alternatively, another funding source could be identified, and the City could install, operate and maintain proprietary systems as funding is secured.

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