



Office of the City Manager

PUBLIC HEARING  
November 12, 2024

To: Honorable Mayor and Members of the City Council  
 From: Paul Buddenhagen, City Manager  
 Submitted by: Jordan Klein, Director, Planning and Development Department  
 Subject: Contract: Ava Community Energy for Energy Resilient Critical Municipal Facilities “Solar + Storage”

### RECOMMENDATION

Conduct a public hearing, and upon conclusion adopt a Resolution authorizing the City Manager to negotiate and execute a Power Purchase Agreement (PPA) contract and any amendments, extensions, or change orders with Ava Community Energy, to install solar and battery back-up storage systems at critical municipal facilities.

### FISCAL IMPACTS OF RECOMMENDATION

If authorized, the City of Berkeley will sign a 25-year Power Purchase Agreement (PPA) with Ava Community Energy for the installation of solar + storage systems at two critical municipal facility sites -- Live Oak Recreation Center and Allston Corporation Yard (Corp Yard) – and agree to purchase the power generated from these sites.

Under this project, the City will not own the solar and battery storage. The installations would be financed through a Power Purchase Agreement (PPA) between the City and Ava. The PPA would allow a third-party developer to own, operate, and maintain the generating equipment, and the City would agree to host the systems and purchase the electric output for 25 years. The PPA will cover the cost of the equipment as well as operation, maintenance, and repair over the life of the contract. Any upgrades needed to accommodate the solar + storage equipment will also be wrapped into the cost of the PPA. The City will pay an agreed-upon price to Ava on a per kilowatt-hour (kWh) basis for power generated and used, as defined in the PPA contract.

Under California Government Code 4217.10 *et seq.*<sup>1</sup>, the cost of the procurement must provide cost savings. Specifically, California Government Code 4217.10 *et seq.* authorizes a public agency to enter into an energy service contract without competitive

<sup>1</sup> Government Code section 4217.10 – 4217.18 is a single-source procurement. It was established so that public agencies could quickly develop energy conservation, cogeneration, and alternate energy supply sources at their facilities based on terms that its governing body determines are in the best interests of the public agency.

[https://leginfo.ca.gov/faces/codes\\_displayText.xhtml?lawCode=GOV&division=5.&title=1.&part=&chapter=3.2.&article=](https://leginfo.ca.gov/faces/codes_displayText.xhtml?lawCode=GOV&division=5.&title=1.&part=&chapter=3.2.&article=)

bidding, provided that there is a two-week public notice before the authorization of the procurement, and that the anticipated cost of the project over the 25-year contract term be less than the anticipated marginal cost of energy that would have been consumed in the absence of the project.

Combined, the Corp Yard and Live Oak Recreation Center are currently using approximately 284,000 kWh of electricity annually from the grid. PG&E electricity rates are predicted to increase 4.5% annually over the next 25 years, based on historic averages and future modeling, whereas this PPA will have a 2.5% escalation rate. This differential will result in cost savings to the City over the 25-year PPA contract period. If the City does not participate in this project, the forecasted 25-year cost of energy for the combined Corp Yard and Live Oak would be over \$5.5 million.

To further reduce the project costs, Ava and its selected counterparties on the PPA, Gridscape Solutions (solar developer) and Green Bridge Energy (asset owner), will leverage incentives, including a 40% Investment Tax Credit (ITC) for both solar and battery storage. In addition, as part of the City Manager's recommended budget, City Council allocated \$100,000 in FY 24 to further increase the cost-effectiveness of this project and buy down the cost of the PPA in the near-term (Project Budget Code PWENCB2310).

#### CURRENT SITUATION AND ITS EFFECTS

The goal of Ava's Energy Resilient Municipal Critical Facilities program is to increase resilience and reduce barriers for installing solar + storage systems for cities within Ava's Joint Power Authority's territory. The initiative includes over 50 critical municipal facilities across seven participating cities: Berkeley, Fremont, Hayward, Livermore, Oakland, Pleasanton, and San Leandro.

Ava, on behalf of the participating cities, is utilizing a collaborative and aggregated procurement structure for deploying renewable energy systems and back-up batteries for selected critical municipal facilities. Ava is acting as the intermediary in the PPA between the cities and Ava's selected counterparties.

Under this structure, the City will sign a PPA contract directly with Ava, which will contract with its selected PPA vendor, Green Bridge, as the financing partner and asset owner. Green Bridge, in turn, will contract with Gridscape as the developer to install, own, operate and maintain these solar and battery installations. The City's PPA contract conditions with Ava will apply to Green Bridge/Gridscape, and any other subcontractors.

Through extensive analysis, including independent engineering reviews and site visits, Ava and City staff selected Live Oak Recreation Center and the Corp Yard as the proposed participating facilities. The project will install solar and battery back-up storage at these two facilities. This will include a solar canopy for the Corp Yard employee parking lot, and rooftop solar installation for Live Oak Recreation Center. Both locations will also have battery storage equipment housed in large storage containers. Staff is

working with Ava and Gridscape to determine the siting of the battery storage systems. The batteries will be sited as near as possible to the solar installations, less set-back requirements, to minimize energy transmission losses. For Live Oak Recreation Center, staff is also engaging with community members to discuss the resiliency benefits of the project and the siting of the battery within Live Oak Park, including efforts to minimize impacts and any loss of open space.

The primary objective of this project is to add resilience to municipal facilities, allowing them to operate emergency loads using solar + storage technologies during a potential grid outage. For facilities that also have generators, the solar + storage system will operate in parallel with the generators to either support full back-up power or partial back-up via the emergency panel(s) supporting critical loads. In instances where the facility load can be supported by solar + storage systems alone, a microgrid controller will be included to allow for the optimization of the solar + storage generation, reducing overall CO<sub>2</sub> emissions. In addition to the resilience benefits, this procurement will also help the City reduce energy bills by managing battery discharge to off-set Time-of-Use (TOU) energy and demand charges, particularly during peak pricing hours.

Table 1: Equipment Size

	Corp Yard	Live Oak	Combined
PV Solar System Size (kW DC)	165.1	36.8	201.9
Battery Size (kWh)	309.6	77.4	387.0

For Live Oak Recreation Center, an estimated 70% of the building energy load will be offset by the solar and battery systems on a daily basis. During a power outage the battery system at Live Oak Recreation Center, if charged to full capacity, will provide around 2.5 hours of battery back-up for a 30kW building emergency energy load. At the Corp Yard, an estimated 80% of the building energy load will be offset by the solar and battery systems on a daily basis. During a power outage the battery system at the Corp Yard, if charged to full capacity, will provide about 1.5 hours of battery back-up for a 200kW emergency energy load in operation during the outage. The battery storage systems at both locations will be continuously recharged by the solar panels, whenever sun is available, thereby extending the duration that the buildings can operate during a power outage.

The PPA contract will include a production guarantee to ensure that the equipment delivers at least 85% of the expected annual power output from the system; failure to do so would result in cash payments by Ava to the City to offset the City’s costs in replacing lost power. This provision provides additional incentive to Ava, and in turn Green Bridge/Gridscape, to maintain the systems in good working order.

In addition to the above benefits, the proposed PPA would benefit the City in the following ways:

- Increase the City's on-site solar generation capabilities and advance Berkeley's goal of achieving Zero Net Energy (ZNE) across its portfolio of facilities.
- No required up-front or out-of-pocket costs to the City.
- Save money over the contract period, compared to current and forecasted utility bills.
- Electrical upgrades at the Corp Yard will be included.

The Energy Resilient Critical Municipal Facilities project is a Strategic Plan Priority Project, advancing our goals to provide state-of-the-art, well-maintained infrastructure, amenities, and facilities; create a resilient, safe, connected, and prepared city; and be a global leader in addressing climate change, advancing environmental justice, and protecting the environment.

This dynamic and collaborative project includes staff from the Planning and Development Department's Office of Energy and Sustainable Development, the Public Works Department, and Park, Recreation and Waterfront Department. While the Office of Energy and Sustainable Development has coordinated to date, the next stage of implementation will be led by the staff of the Engineering Division of the Public Works Department.

#### BACKGROUND

Ava (formerly known as East Bay Community Energy or EBCE) is a Joint Powers Authority whose goal is to procure cleaner, greener energy at lower rates to Alameda and San Joaquin County customers. The City helped found Ava in 2016 and has been using Ava's clean energy since 2018. Municipal accounts began using Ava's Renewable 100 (R100) service rather than the base Bright Choice product in 2019; residential and commercial accounts in Berkeley have been automatically enrolled in R100 since 2022. Ava's Board of Directors is comprised of elected officials from each of the participating jurisdictions. Councilmember Igor Tregub currently sits on the Ava Board of Directors with Councilmember Cecilia Lunaparra as the alternate.

Ava began working with the City in 2019 to assemble a list of its critical facilities, ranging from fire stations and emergency operation centers, to libraries and community centers for consideration in this solar + storage project. Ava conducted an initial assessment examining each site's natural hazard exposure, service to the community, condition and readiness to proceed with hosting solar + storage equipment for 25 years, and solar and battery potential.

On March 23, 2021 the Berkeley City Council authorized the City to participate in the Municipal Critical Facility Procurement for Solar and Battery Energy Storage with East Bay Community Energy (now Ava) and passed Resolution 69,757-N.S.<sup>2</sup> stating the intent to sign the PPA contract, as long as the City determined that the cost-effectiveness of the project portfolio would result in benefits to the City's budget and service to the community.

Upon passage of the City's resolution, Ava contracted with EcoMotion, an independent engineering firm, to work with Ava and City staff to compile all available documentation on City facilities, develop preliminary pricing estimates and complete site visits on all possible sites to determine which sites could be built. EcoMotion performed electrical, structural, and roofing condition assessments on eight City facilities: Live Oak Recreation Center, Allston Corp Yard, Public Safety Building, Emergency Storage Warehouse, Telegraph Channing Garage, and Fire Stations 1, 3, and 5. Based on these assessments, the shortlist of potential sites comprised Live Oak Recreation Center, Corp Yard, and Fire Stations 1,3 and 5. Concurrent with this analysis, the Fire Department also completed a Facilities Master Plan and found that several of their facilities, including Fire Stations 1, 3, and 5, need major renovation or replacement within the 25-year timeframe. As such, the list was narrowed to the Live Oak Recreation Center and the Corp Yard.

Ava issued a Request for Offers (RFO) on July 31, 2023 to solicit proposals for the Critical Municipal Facilities procurement. Ava received two bids in response to the 2023 RFO for solar and storage PPAs. After reviewing bids and interviewing respondents, Ava selected Green Bridge as the project owner and contractual counterparty in partnership with Gridscape, as the solar developer. Together Green Bridge/Gridscape will finance, install, own, operate and maintain the solar and battery systems.

Gridscape is a local developer, located in Fremont, that has extensive experience developing solar + storage microgrids for public agencies including for the City of Fremont. Green Bridge is a commercial-scale renewable energy investing and development firm. Its current portfolio includes 18 California municipal solar and/or storage microgrid projects.

### ENVIRONMENTAL SUSTAINABILITY AND CLIMATE IMPACTS

This project will increase Berkeley's transition to clean, local power by installing solar at key critical municipal facilities. The batteries will help these facilities during peak energy use times and alleviate pressure on the grid when dirtier power plants might otherwise need to be brought online to meet demand. This project will also enhance community resilience by ensuring that key critical municipal facilities can continue to operate on

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<sup>2</sup> Resolution 69,757-N.S. authorized the City Manager to continue pursuing widespread deployment of solar and battery energy storage systems and commit to installing the systems if the City determined they were beneficial. <https://berkeleyca.gov/sites/default/files/documents/2021-03-23%20Item%2002%20Partnership%20with%20East%20Bay.pdf>

clean power, rather than on just diesel generators, and serve the public even when there is a power outage. These project installations will use union labor, pay prevailing wages, and employ workers from Alameda County and San Joaquin Valley areas to ensure that the project also benefits the local workforce and advances a Just Transition from fossil fuels. In addition, the City will retain all Renewable Energy Certificates (RECs) associated with the facilities in its portfolio.

This project is statutorily exempt from further environmental review under the California Environmental Quality Act because it is consistent with California Public Resources Code section 21080.35, which provides that solar energy systems installed on the roof of an existing building or on an existing parking lot, meeting certain characteristics, are exempt from CEQA.

#### RATIONALE FOR RECOMMENDATION

This is a financially optimal time to go forward with this procurement, as it takes advantage of time-sensitive incentives including the increased solar and battery storage investment tax credits from the Federal Inflation Reduction Act (IRA). In addition, Ava and Gridscape submitted interconnection applications, prior to the April 15, 2023 Net Energy Metering (NEM) 2.0 deadline, for all of Berkeley's proposed participating facilities in order lock-in the more lucrative solar generation payback rates. In order to take advantage of these favorable NEM 2.0 rates, the project must be completed by April 2026.

#### ALTERNATIVE ACTIONS CONSIDERED

None. The City does not have the funding, expertise, and staffing to develop and negotiate a cost-effective PPA to install solar and battery back-up storage at these facilities at this time. It is also no longer possible to utilize NEM 2.0 rates outside of this program.

#### CONTACT PERSON

Marna Schwartz, Sustainability Program Manager, Office of Energy and Sustainable Development, Planning and Development, 510-981-7473

Sarah Moore, Manager, Office of Energy and Sustainable Development, Planning and Development, 510-981-7494

Jordan Klein, Director, Department of Planning and Development, 510-774-1337

#### Attachments:

1: Resolution

2: Public Hearing Notice

RESOLUTION NO. ##,###-N.S.

CONTRACT: AVA COMMUNITY ENERGY FOR ENERGY RESILIENT CRITICAL MUNICIPAL FACILITIES "SOLAR + STORAGE"

WHEREAS, the Berkeley City Council has demonstrated its commitment to an environmentally 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, on June 2, 2009, the Berkeley City Council adopted the Berkeley Climate Action Plan to reduce greenhouse gas emissions by 80% of Berkeley's 2000 emissions level by 2050; and

WHEREAS, on April 1, 2016, the City of Berkeley released its Resilience Strategy with the goal of "Accelerating Access to Reliable and Clean Energy;" and

WHEREAS, on June 12, 2018, the Berkeley City Council declared a Climate Emergency and resolved to become a "Fossil Fuel-Free City;" and

WHEREAS, on November 30, 2021, Berkeley City Council adopted a resolution for the Cities Race to Zero Campaign to establish a 2030 emission reduction target that reflects Berkeley's fair share of the 50% global reduction in CO<sub>2</sub>e, committing to reduce emissions 60.5% from 2018 levels by 2030; and

WHEREAS Berkeley's Strategic Plan sets the goals of providing state-of-the-art, well-maintained infrastructure, amenities, and facilities; creating a resilient, safe, connected, and prepared City; and being a global leader in addressing climate change, advancing environmental justice, and protecting the environment; and

WHEREAS, the City of Berkeley conducted a feasibility analysis for a clean energy microgrid community to provide back-up power to critical municipal facilities and determined that solar and battery energy storage was the most cost-effective solution; and

WHEREAS, Ava Community Energy (formerly East Bay Community Energy or EBCE) is a Community Choice Aggregator. Community Choice Aggregation 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 facilities; and

WHEREAS, on November 1, 2016, the Berkeley City Council adopted Resolution No. 67,730-N.S. authorizing Berkeley's participation in Ava Community Energy (formerly East Bay Community Energy or EBCE) and authorized implementation of Ava in Berkeley; and

WHEREAS, on April 24, 2018, the Berkeley City Council adopted Resolution No. 68,404-N.S., selecting the Brilliant 100 (100% GHG-free) and later on October 27, 2020 adopted Resolution No. 69,601-N.S. to select Renewable 100 as the electric service plan for all municipal accounts; and

WHEREAS, on March 23, 2021, the Berkeley City Council passed Resolution 69,757-N.S. authorizing the City to participate in the Municipal Critical Facility Procurement for Solar and Battery Energy Storage with East Bay Community Energy (now Ava); and

WHEREAS, based on analyses, including independent engineering reviews and site visits, Live Oak Recreation Center and Allston Corp Yard have been identified as facilities that could potentially be served by the Municipal Critical Facility Procurement for Solar and Battery Energy Storage with Ava; and

WHEREAS, California Government Code Section 4217.10 *et seq.* authorizes public agencies, including the City of Berkeley, to enter into an energy service contract when the anticipated cost of the conservation services provided by an energy conservation facility will be less than the anticipated marginal cost of energy that would have been consumed in the absence of the project; and

WHEREAS, in accordance with Government Code section 4217.10 *et seq.*, the City of Berkeley published a notice of public hearing in the Berkeley Voice, a newspaper of general circulation, on October 28, 2024 with at least two weeks' notice of the public hearing, and on November 12, 2024 conducted a public hearing.

NOW THEREFORE, BE IT RESOLVED by the Council of the City of Berkeley that the City Manager is authorized to negotiate and execute a Power Purchase Agreement (PPA) contract and any amendments, extensions, or change orders with Ava Community Energy to install solar and battery back-up storage systems at critical municipal facilities.

**NOTICE OF PUBLIC HEARING  
BERKELEY CITY COUNCIL  
TO CONSIDER ENTERING INTO A POWER PURCHASE AGREEMENT  
WITH AVA COMMUNITY ENERGY FOR SOLAR AND BATTERY BACK-  
UP STORAGE AT CRITICAL MUNICIPAL FACILITIES PURSUANT TO  
CALIFORNIA GOVERNMENT CODE 4217.10 ET SEQ.**

**The public may participate in this hearing by remote video or in-person.**

The Planning and Development Department is proposing to consider entering into power purchase agreement (PPA) with Ava Community Energy to install solar and battery back-up storage systems at critical municipal facilities. Notice is given, pursuant to California Government Code section 4217.10 *et seq.*, that the City of Berkeley will hold a public hearing to consider authorizing the City Manager to negotiate and execute this contract. Further pursuant to the terms of Government Code section 4217.10 *et seq.*, in order to authorize the City Manager to negotiate the PPA contract, the Berkeley City Council is required to make findings that the cost to the City of Berkeley to implement the energy related improvements per the PPA will be less than the anticipated marginal cost to the City of Berkeley of the electrical or other energy that would have been consumed by the City of Berkeley in absence of those purchases under the PPA.

The hearing will be held on, November 12, 2024 at 6:00 p.m. in the School District Board Room, located at 1231 Addison Street, Berkeley CA 94702.

A copy of the agenda material for this hearing will be available on the City's website at <https://berkeleyca.gov/> as of October 31, 2024. **Once posted, the agenda for this meeting will include a link for public participation using Zoom video technology, as well as any health and safety requirements for in-person attendance.**

For further information, please contact Marna Schwartz, Sustainability Program Manager, Office of Energy and Sustainable Development, at 510-981-7473.

Written comments should be mailed or delivered directly to the City Clerk, 2180 Milvia Street, Berkeley, CA 94704, or e-mailed to [council@berkeleyca.gov](mailto:council@berkeleyca.gov) in order to ensure delivery to all Councilmembers and inclusion in the agenda packet.

Communications to the Berkeley City Council are public record and will become part of the City's electronic records, which are accessible through the City's website. **Please note: e-mail addresses, names, addresses, and other contact information are not required, but if included in any communication to the City Council, will become part of the public record.** If you do not want your e-mail address or any other contact information to be made public, you may deliver communications via U.S. Postal Service

November 12, 2024

or in person to the City Clerk. If you do not want your contact information included in the public record, please do not include that information in your communication. Please contact the City Clerk at (510) 981-6900 or [clerk@berkeleyca.gov](mailto:clerk@berkeleyca.gov) for further information.

**Published:** October 25, 2024 - The Berkeley Voice

**California Government Code - GOV § 4217.12** allows a public agency to enter into an energy service contract and any necessarily related facility ground lease on terms that its governing body determines are in the best interests of the public agency if the determination is made at a regularly scheduled public hearing in which, public notice is given at least two weeks in advance.

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I hereby certify that the Notice for this Public Hearing of the Berkeley City Council was posted at the display case located near the walkway in front of the Maudelle Shirek Building, 2134 Martin Luther King Jr. Way, as well as on the City's website, on October 31, 2024.

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Mark Numainville, City Clerk