

CCA Resilience Initiatives

As de-energization becomes the norm in California, CCAs are uniquely positioned to rapidly advance local energy resilience initiatives such as microgrids to keep critical facilities on line, and locally sited distributed energy resources (DER) like solar and energy storage to help prevent future wildfires and grid outages. CCAs are in fact already supporting local resilience projects and are actively advocating for policies that accelerate the development of mitigating resources. Without greater resilience, lives are at risk and climate goals may be jeopardized. Here are a few of the ways CCAs are working to boost resilience in communities throughout California:



East Bay Community Energy serves ~550,000 customers in Alameda County including in Albany, Berkeley, Dublin, Emeryville, Fremont, Hayward, Livermore, Oakland, Piedmont, San Leandro, Union City and the county's unincorporated areas.

BAAQMD Grant for Solar + Storage on Critical Facilities

East Bay Community Energy was approved for a \$300,000 grant under the Bay Area Air Quality Management District's Climate Protection Grant Program, in the category of 'Fostering Innovative Technologies.' EBCE has joined forces with Peninsula Clean Energy for this effort. [The proposal](#) focuses on putting combined solar and battery energy systems onto "critical facilities" that provide emergency services during natural disasters. This "resilient solar" strategy will provide a cleaner source of backup energy than diesel generators, reduce air pollution through increased clean energy, and reduce operating costs for public agencies.

Virtual Power Plant Contract with Sunrun

EBCE has signed a 10-year agreement with San Francisco-based Sunrun for 0.5 MW of energy storage in and around Oakland drawn from new solar + storage installations on low-income housing. The effort is part of the Oakland Clean Energy Initiative and proxy demand response, but also supports resiliency. See [press release](#) for more details.

Resiliency Storage Program

EBCE, Peninsula Clean Energy, and Silicon Valley Clean Energy are planning to soon issue a joint RFP for 30 Megawatts (10 MW for each CCA) of behind-the-meter storage targeting disadvantaged and low-income communities. The RFP will seek responses from installers that will aggregate residential and commercial customer load.



Lancaster Choice Energy serves ~ 50,000 customers in the City of Lancaster in north Los Angeles County.

ZNE Microgrid Communities

In August, the California Energy Commission awarded the City of Lancaster \$4.9 Million in Phase II funding from the Commission's Electric Program Investment Charge (EPIC). Lancaster is working with the ZNE Alliance to develop an Alternative Energy Community, which includes two affordable ZNE residential home developments deployed as microgrid communities. The project team is designing renewable microgrids that enhance local resiliency, while remaining cost-competitive with traditional developments. The project team will identify Distributed Energy Resource (DER) configurations (including an innovative flywheel energy storage system), microgrid system components, interconnection agreements, energy tariffs, and billing processes that will serve as prototypes for additional ZNE developments now being planned and built throughout the city, totaling over 1000 homes. These processes will also be organized into a toolkit for other California communities eager to develop affordable ZNE residential developments backed by renewable microgrids. Projects are currently undergoing interconnection process/design discussions with project team, Lancaster Choice Energy, and Southern California Edison.

Goal	Objectives
Develop ZNE residential communities that demonstrate the costs and benefits of diverse renewable microgrid technologies and configurations	<ol style="list-style-type: none">1. Construct a renewable microgrid at the Avenue I ZNE residential development that will include 273 kW of solar, and 780 kWh of lithium-ion battery storage to help power 78 ZNE homes2. Construct a renewable microgrid at the Sierra Highway ZNE residential development that will include 584 kW of solar, 1.67 MWh of lithium ion battery storage, and 500 kWh of flywheel kinetic energy storage to help power 167 ZNE homes.3. Pilot a new residential rate design that supports community-scale microgrid development, captures diverse, currently untapped DER value streams, and shares value with residents of the affordable housing community.



MCE provides electricity service to ~470,000 customer accounts in 34 member communities across four Bay Area counties: Napa, Marin, Contra Costa, and Solano.

Energy Storage Pilot

The College of Marin participated in an MCE pilot program for the installation of Tesla batteries to store and use surplus energy from solar panels at both their Kentfield campus and their satellite campus. This energy storage system now stores power it acquires during off-peak hours when energy costs are lower and utilizes this electricity during peak hours when energy costs are higher, providing significant savings to the college on their energy bill.



Monterey Bay Community Power serves an estimated 276,000 customers in Monterey, San Benito and Santa Cruz counties and will be expanding its service to over 460,000 customers across the Central Coast including communities in San Luis Obispo and Santa Barbara counties.

SmartConnect Program

MBCP is in the process of developing a two part microgrid program focusing on local economic development and community resiliency. MBCP is currently negotiating a potential distributed energy resource in South Monterey county. MBCP is also fast tracking a community resiliency program where MBCP will provide financing to develop local energy resources for customers deemed critical facilities. MBCP is currently reviewing its service area and focusing on sites within Tier 3 and Tier 2 fire risk zones.



Peninsula Clean Energy serves ~290,000 customers in San Mateo County.

Local Resilience Program

PCE's Board of Directors on October 24 committed to a budget of up to \$10 million over three years for local electricity resilience programs. PCE will develop programs that address these high-level priorities: 1. Backup generation to medically fragile residential customers; 2. Community-scale emergency response centers outfitted with energy resiliency; and 3. Critical infrastructure, goods, and services such as police/fire stations, hospitals and other healthcare facilities, communications facilities that support emergency first responders, and wastewater/sewage/water pumping facilities, as well as transportation infrastructure.

Resiliency Storage Program

PCE, EBCE, and Silicon Valley Clean Energy are planning to soon issue a joint RFP for 30 Megawatts (10 MW for each CCA) of behind-the-meter storage targeting disadvantaged and low-income communities. The RFP will seek responses from installers that will aggregate residential and commercial customer load.

BAAQMD Grant for Solar + Storage on Critical Facilities

[PCE has joined forces with EBCE](#) to install combined solar and battery energy systems onto critical facilities that provide emergency services during natural disasters. This "resilient solar" strategy will provide a cleaner source of backup energy than diesel generators, reduce air pollution through increased clean energy, and reduce operating costs for public agencies.



Redwood Coast Energy Authority serves ~62,000 customers in Humboldt County, and the cities of Eureka, Arcata, Fortuna, Ferndale, Blue Lake, Rio Dell, and Trinidad.

Airport Microgrid Project

Redwood Coast Energy Authority is partnering with the Schatz Energy Research Center (SERC) at Humboldt State University, PG&E, and the County of Humboldt to build a 7-acre, 2.25 MW solar array and battery energy storage system at the California Redwood Coast – Humboldt County Airport (ACV). The County will house the airport microgrid, RCEA will own and operate the solar and battery

systems, PG&E will operate the microgrid circuit, and SERC will be the prime contractor responsible for the project design and technology integration. The microgrid will include:

- 250 kW net metered system to offset daily electricity usage at the airport
- 2 MW of wholesale power that will feed clean energy directly into the grid
- 2 MW battery storage system providing 8MWh of energy storage
- Microgrid controller providing the ability to “island” from the main grid so the airport and adjacent Coast Guard facility can run fully on solar and batteries if there is a regional power outage
- Electric vehicle charging stations capable of demand response
- Enough solar-generated electricity to power 430 households, and prevent the emission of ~880 metric tons of carbon dioxide

[The project](#) is being funded by a \$5 million grant from the California Energy Commission’s EPIC Program, with \$6 million in match funding from RCEA. The system will be the first multi-customer, front-of-the-meter microgrid in Pacific Gas & Electric’s area of service. Groundbreaking will begin spring of 2020 with the system expected to be fully operational in December of 2020.



San José Clean Energy serves ~328,000 customers in the City of San José.

[San Jose is considering](#) the strategic development of microgrids in key locations throughout the city, with particular emphasis on critical infrastructure and areas requiring high levels of redevelopment and infrastructure investment.



Silicon Valley Clean Energy serves ~270,000 customers in Campbell, Cupertino, Gilroy, Los Altos, Los Altos Hills, Los Gatos, Milpitas, Monte Sereno, Morgan Hill, Mountain View, Saratoga, Sunnyvale, and unincorporated Santa Clara County.

Resiliency Storage Program

SVCE, EBCE, and PCE are planning to soon issue a joint RFP for 30 Megawatts (10 MW for each CCA) of behind-the-meter storage targeting disadvantaged and low-income communities. The RFP will seek responses from installers that will aggregate residential and commercial customer load.

Virtual Power Plants

SVCE is looking to harness the power of aggregated distributed energy resources (DERs), also known as virtual power plants. Working with Gridworks, SVCE assessed five different virtual power plant options for its service territory including Real Time Pricing, Critical Peak Pricing, Demand Response Auction Mechanism, Load Shift Resources, and a Distribution Services Model. The results of this investigation can be found here: [Silicon Valley Clean Energy Virtual Power Plant Options Analysis.](#)



Sonoma Clean Power serves 224,000 accounts in Sonoma and Mendocino counties.

Microgrid Development in Fire-Prone Areas

SCP is working with two microgrid projects today and is preparing to hire additional staff solely dedicated to microgrid work. An example project is the Oakmont senior housing community which has approximately 800 residents who are medically dependent on electricity and is located entirely inside a Tier 3 fire zone. All power lines in the community are underground, and yet the neighborhood has been shutoff in every PSPS event to date. SCP has created a partnership with the Electric Power Research Institute and the Oakmont homeowners' association, which is also engaged with PG&E. The early goal of the microgrid is to provide clean power sources of backup energy to the community centers for places of refuge. Stage 2 involves solar and battery storage in approximately 500 homes with automatic transfer switches, utilizing a mass purchase program to bring pricing down. Stage 3 involves islanding the entire 3,200 home community to allow continuous operation through any PG&E blackouts or PSPS events.



Municipalization

The City and County of San Francisco, which operates **CleanPowerSF**, and **Valley Clean Energy** have issued bids to purchase PG&E assets in their respective territories. VCE serves customers in Yolo County, and CleanPowerSF serves customers in San Francisco. The City of San Jose, which operates **San Jose Clean Energy**, is weighing whether it should take steps to develop an offer to purchase PG&E's infrastructure in San Jose.

For more information please contact:

Leora Broydo Vestel
Director of Communications
California Community Choice Association
(415) 999-4757 | leora@cal-cca.org