
EAST BAY ENERGY EFFICIENCY PROGRAMS

This section describes the main ratepayer-funded energy efficiency programs in the East Bay for each major market sector—single family, multifamily, commercial (including industrial and agricultural), municipal and cross cutting.

Note: Program results metrics are only provided where they were readily available for this paper.

Single-Family Programs

PG&E

Advanced Home Upgrade

Up to \$5,500 in rebates and incentives for energy efficiency improvements in existing homes. Requires that participating contractors evaluate the home's heating, cooling and water heating systems. Referrals to financing programs.

California Advanced Homes

Resources and incentives to architects and builders for energy-efficient new single-family homes.

Energy Savings Assistance Program (ESAP)

No-cost weatherization, energy-efficient appliances and energy education for low-income customers.

Plug Load & Appliances

Partnership with local retailers to market and provide special pricing for energy-efficient home appliances including clothes washers, gas water heaters, electric heat pump water heaters and pool pumps. In 2016, PG&E received more than 77,500 applications for this program in their service territory.

Residential HVAC

Education and resources for contractors about HVAC technology, installation and maintenance, and code and permit compliance. This program has had an influence on more than 20,000 HVAC systems in PG&E's service territory.

BayREN (Bay Area Regional Energy Network)

Energy Upgrade California: Home Upgrade and Advanced Home Upgrade

Up to \$3,150 in rebates and incentives for energy efficiency improvements. Requires completion of at least three upgrade measures including one base measure. Provides \$300 rebate for homeowners who complete an energy assessment through PG&E's Advanced Home Upgrade program. Eligible projects must demonstrate a minimum of 10 percent modeled savings. Attracts primarily higher income households due to high out-of-pocket costs. BayREN is exploring program models for moderate-income households.

As of March 31, 2017, this program had served 1,297 homes in Alameda County and 1,833 homes in Contra Costa County.

Home Energy Score

BayREN also promotes the U.S. Department of Energy's Home Energy Score (HES) as a low-cost assessment tool for homeowners. Program outreach is managed by the StopWaste Energy Council.

Home Upgrade Advisor

Phone- and field-based consulting service providing individualized assistance to homeowners about energy efficiency programs and benefits, contractor selection, assessment report and bid review, financing options, upgrade project support and customer service. Also provides referrals to relevant complementary programs.

East Bay Energy Watch

California Youth Energy Services

EBEW contracts with Rising Sun Energy Center's California Youth Energy Services (CYES) program to hire and train youth ages 15 to 22 for summer jobs conducting Green House Calls, which include no-cost home assessments, installing energy- and water-saving devices, and giving residents energy and water conservation tips. Focuses on hard-to-reach households: low to moderate income, renters, multifamily, seniors, non-native English speakers.

CYES is popular with cities for its strong youth training component despite being costly to operate for savings achieved. Since 2010, the program has conducted assessments at 38,196 homes, including 17,364 East Bay homes, and trained and employed 1,537 youth, including 654 East Bay youth. It has saved 120,438,231 kWh, including 4,413,322 kWh in the East Bay, and offset 98,063 metric tons of CO₂ emissions.

Multifamily Programs

PG&E

Multifamily Upgrade

Tiered rebates of \$400 to \$3,000 per unit for whole building upgrades to HVAC and hot water systems, building envelope, lighting and appliances. Assessment incentive of up to \$300.

Multifamily Energy Efficiency Rebates

This program, which offered rebates for energy-efficient appliances in dwelling units and common areas, is on hold due to low activity.

California Multifamily New Homes

Resources and incentives for architects and builders for energy-efficient new multifamily buildings.

BayREN

Bay Area Multifamily Building Enhancements (BAMBE)

Rebates of \$750 per unit and free energy consulting for whole-building energy upgrades. Focuses on projects designed to reduce building's energy use by 15 percent or more. Targets homeowners associations (HOAs) and affordable and market-rate multifamily buildings with five or more attached dwelling units.

In the Bay Area, as of October 2016, this program provided consulting services impacting 65,000+ units; paid \$12+ million in rebates to 252 properties (16,107 units); and saved over 7.1 million kWh and 516,000 therms.

Specifically within Alameda and Contra Costa Counties, as of October 2016 this program provided consulting impacting 10,000+ units; paid nearly \$4 million in rebates for over 5,300 units; and saved over 2 million kWh and 185,000 therms.

Bay Area Multifamily Capital Advance Program (BAMCAP)

Zero percent interest loan for BAMBE participants. Loan limited to no more than 50 percent of the cost of the approved scope of work minus program incentives. New concierge model (expected to launch in 2018) will match property owners with lenders specializing in energy efficiency loans as low as \$5,000.

Since its launch in April 2015, this program has enrolled five lenders and completed three transactions, issuing \$879,000 in program capital and leveraging \$1.3 million in private capital.

East Bay Energy Watch

CYES serves households in multifamily residences through their Green House Calls, one household at a time. See Single-Family Programs for more information.

Commercial Programs

PG&E

Commercial HVAC Optimization

Incentives up to \$3,836 per unit for enrolling in air conditioning maintenance service agreements and installing optional unit retrofits.

Savings by Design

Resources and incentives for architects and builders for energy-efficient new non-residential buildings.

BayREN

Currently no commercial programs. SF Environment is the lead for a BayREN proposal submitted to the CPUC for a commercial program that would include an expansion of the financing program described below under “Energy Watch Microloan Program.”

East Bay Energy Watch

East Bay Energy Watch Program

Free energy audits. Incentives for lighting retrofits, refrigeration equipment, controls and other technologies; incentives typically cover 50 to 70 percent of the project cost. Prior to 2017, this was two distinct programs: SmartLights (an audit-based model administered by Community Energy Services Corporation), and BEST (a contractor model administered by DNV-GL).

Since 2002, SmartLights completed 8,050 projects saving nearly 92 million kWh. BEST completed 6,000 projects saving 96.7 million kWh.

Your Energy Manager

No-cost analysis, incentives and financing options for energy and water efficiency upgrades. Focus on operational and behavior improvements, lighting, plug load, and packaged HVAC equipment improvements. Serves small and medium-sized businesses with demand of less than 200 kW.

In 2016, YEM met its goal of engaging with 24 properties, where they trained energy champions, put operational and behavioral changes in effect, and implemented energy efficiency projects.

Building Operator Certification

Funding for municipal facilities staff to attend Building Operator Certification courses to learn how to optimize efficiency of city and county facility operations. Training addresses how to maintain and

enhance building systems at little to no cost.

In 2016, 10 jurisdictions in Alameda County and 4 in Contra Costa County participated. In 2017, 7 Alameda County and 4 Contra Costa County jurisdictions participated. Feedback from participants is that the course is very cost- and time-effective.

Energy Watch Microloan Program

Expected to launch in late 2017 in partnership with Mission Asset Fund. Will provide short-term, zero-interest loans to support completing projects in the San Francisco and East Bay Energy Watch territories. Serves small and medium businesses.

Municipal Programs

PG&E

No municipal programs.

BayREN

ZNE Assistance for Municipal Buildings

Engineering and cost analysis assistance for zero net energy design and implementation of municipal facilities. This is a unique program that does not duplicate any existing energy efficiency programs in the East Bay.

East Bay Energy Watch

Municipal Implementation Team (MIT)

No-cost energy assessments and technical assistance for municipal buildings. Matches municipalities with cash incentives. Technical assistance, training and reporting services for local government staff on the use of ENERGY STAR Portfolio Manager. Program adjusted in 2016 to provide more flexibility to serve the diverse range of municipal facilities.

The 2016 technical assistance program model served 21 buildings, saving \$930,000, 5.8 million kWh, 22,825 therms, and 1,330 metric tons CO₂e.

Under the 2010–2015 custom incentive program model, 144 audits were performed and 27 projects installed, saving 3.7 million kWh and 137,818 therms. Over \$427,000 of incentives were awarded.

CivicSpark

CivicSpark is a Governor's Initiative AmeriCorps program in California that builds local government capacity to address climate change and water management issues. In the East Bay, activities include climate action planning and metrics, energy efficiency program outreach and implementation, greenhouse gas emissions inventories, outreach for the East Bay Energy Watch Program for small and medium-size businesses (formerly BEST and SmartLights), residential energy workshops, building energy efficiency benchmarking and billing, portfolio manager, and this EBEW paper.

In fiscal year 2015–16, 11 East Bay jurisdictions participated in the program by hosting 11-month Climate Fellows (Antioch, Berkeley, Contra Costa County, Emeryville, Fremont, Hayward, Martinez, Oakland, Piedmont, Pittsburg and Richmond). Each pledged 20 percent of CivicSpark Fellow service hours (out of 1,300+ total hour) to EBEW programs and increased participation in climate action planning and metrics, energy efficiency program outreach and implementation, and piloting and expanding Lucid's BuildingOS platform.

In fiscal year 2016–17, sixteen jurisdictions participated (Albany, Antioch, Berkeley, Contra Costa County, El Cerrito, Emeryville, Fremont, Hayward, Martinez, Oakland, Piedmont, Pittsburg, Richmond, San Leandro, Union City and Walnut Creek).

In fiscal year 2017–18, fourteen jurisdictions are participating (Alameda, Albany, Antioch, Dublin, El Cerrito, Fremont, Hayward, Martinez, Oakland, Piedmont, Pinole, Richmond, San Leandro and San Pablo).

Lucid Connected Cities (EBEW and Lucid partnership program)

Uses Lucid's BuildingOS platform to improve tracking of facility energy use and generation. Allows local governments to benchmark their buildings, provides automated reports and can be used for real-time automated displays. Serves municipal customers. Four jurisdictions have participated: Berkeley, Contra Costa County, Hayward and Oakland.

Municipal Automated Demand Response Pilot

Proposed pilot to encourage East Bay local governments to participate in PG&E's Automated Demand Response (ADR) program.

Cross-Cutting Programs

PG&E

Energy Advisor

Assists customers in understanding and analyzing their energy use and patterns, and selecting

appropriate energy-saving incentives, technologies and initiatives. Serves residential and commercial customers.

Calculated Incentives

Incentives and technical assistance for installing above-code equipment in existing buildings. Eligible projects require approval and a comprehensive savings verification process. Serves commercial, industrial and agricultural customers.

Code and program eligibility changes have resulted in a decline in projects over the past several years.

Deemed Incentives

Rebates to homeowners for energy-efficient refrigerators, clothes washers, air conditioners, water heaters and other appliances. Incentives for nonresidential customers and vendors for installing or selling qualified energy-efficient equipment. More straightforward than calculated incentives program because does not require comprehensive savings verification. Serves residential, commercial, industrial and agricultural customers.

Direct Install

Provides product and labor for installing efficiency measures. Serves commercial and low-income residential sectors. Straightforward for the customer but lacks flexibility, as the customer has no choice in contractor or product brand.

Continuous Improvement

Consulting services (training, facilitation of cohorts and best practices sharing circles, coaching) for long-term strategic planning and management to reduce energy intensity. Serves commercial, industrial and agricultural customers.

On-Bill Financing

Zero percent interest, zero down payment financing program for energy efficiency upgrades repaid on customer's PG&E utility bill. Serves commercial and municipal sectors.

Codes and Standards

Active member of a statewide team that has supported 80 building codes and 60 appliance standards in California, as well as 40 federal appliance standards or test procedures since 1998.

BayREN

Codes and Standards

Assists cities and counties in complying with the California Building Energy Efficiency Standards. Establishes metrics to evaluate compliance. Provides free training for staff involved in energy code enforcement. To date, this program has hosted 151 workshops and trainings attended by nearly 700 building department staff. In 2016, the program delivered four half-day regional forums, 38 energy code trainings and three online trainings. It also initiated the Residential Energy Assessment & Disclosure

(READ) working group, and customized and distributed over-the-counter permit guides to help building staff and permit applicants understand the building code.

PAYS (Pay As You Save) On-Bill Financing

Allows municipal water utility customers to pay for efficiency improvements through a monthly charge associated with their meter. Joint effort of Bay Area cities and counties and their water agencies. Serves residential, commercial and municipal customers.