

San Francisco Energy Efficiency Program Descriptions and Annual Budgets

Program	Summary	Typical Annual Budget	Typical Annual Properties or Populations Served	Typical Annual Utility Savings to Constituents	Financing
Energy Efficiency Services Division: San Francisco Public Utilities Commission					
Municipal	Energy Efficiency team has helped City departments enhance energy performance in San Francisco's municipal facilities building-by-building. Services include energy audits of existing buildings to identify savings opportunities, energy retrofits performed by specialized contractors, Green Building commissioning and design assistance for construction and renovation projects and energy performance benchmarking for San Francisco's municipal buildings.	\$1 Million (FY 2016)	Seven buildings were served last year with an average cost of \$87,000 per project.	\$116,000 \$0.11 per kWh average saved across projects completed through the direct install programs. Electricity Reduced: 807 MWh/yr Natural Gas Reduced: 43,000 therms	No
Shared Savings Program: San Francisco Unified School District					
Municipal	Schools that can reduce their utility bill by 5% or more compared to their baseline are rewarded with up to 50% of the savings to use however they wish at their school.	\$79,805 (FY 2016)	48 schools were served with an average savings of \$6,551 per school.	\$314,439 Electricity Reduced: 258,234 kWh saved / 5,380 per school \$17,419 in electricity saved / \$363 per school Natural Gas Reduced: 154,815 therms saved / 3,225 per school \$188,510 therms saved / \$3,927 per school	No
PACE Financing (San Francisco-based): San Francisco Department of the Environment					
GreenFinanceSF	San Francisco's own commercial PACE program, GreenFinanceSF, was authorized in 2011 and can provide property owners upfront funding for energy efficiency, renewable energy, electric vehicle charging equipment, energy storage, and water conservation improvements, and related costs, and repay the financed amount on their property tax bill over the course of up to 25 years.	\$0	2 commercial projects: - \$1.4 million - \$1.8 million	Unknown	Yes. Capital provided by private investors
Residential PACE	In 2014, the Board passed resolutions opting the City into 3 joint powers authority-sponsored residential PACE programs: Alliance NRG, HERO, and CaliforniaFIRST. They funding and administration for these programs are handled by the JPA's and their PACE partners.	\$100,000	As of 1/31/17: 78 projects (homes) \$3,785,621 financed	Unknown	Yes. Capital provided by JPA's and their PACE partners

Total PACE Budget	Total energy efficiency program costs and savings.	\$100,000		Unknown	
Bay Area Regional Energy Network (BayREN): SF Department of the Environment on behalf of the Association of Bay Area Governments					
Single Family	<p>Home Upgrade is an Energy Upgrade California® program specifically for Bay Area homeowners and implemented by local county governments. Home Upgrade is available to homeowners in the nine (9) Bay Area counties.</p> <p>Home Upgrade helps homeowners identify energy efficiency improvements through a Home Advisor. Home Advisor’s assist homeowners in creating an energy efficiency improvement plan to tune up homes to operate as efficiently as possible.</p> <p>Rebates and incentives are available for home improvements including air and duct sealing, attic and wall insulation, high-efficiency furnaces, cooling and water systems, and more.</p> <p>SF Environment’s primary responsibility is to market Home Upgrade to the City’s single-family homeowners (ex. no cost workshops, social media).</p>	\$69,658		Unknown	Residential PACE, currently offered by three separate providers (see above)
Multifamily	<p>Bay Area Multifamily Building Enhancements (BAMBE) offers \$750 per unit in rebate to help multifamily property owners (5+ units) lower the cost of energy efficiency upgrades and provides the support, advice and technical assistance needed to implement upgrade improvements. This program gives owners the flexibility to choose their own installation contractors and receive the rebate once upgrades are completed.</p>	<p>\$375,600 annually</p> <p>\$1,245,000 in incentives</p>	<p>1,500 + units annually (5,863 units cumulative from 2013-2016), 72 total buildings, 22% of which are affordable housing properties.</p>	<p>~1,000,000-kWh and 60,000 therms reduced in 2016</p>	<p>Yes.</p> <p>PACE or BayREN Multifamily Capital Advance Program (BAMCAP)</p>
BayREN C-PACE Initiative	<p>This initiative is designed to increase uptake in commercial PACE (C-PACE) financing available through a variety of PACE programs in the Bay Area. BayREN provides advanced contractor training and project development support that is responsive to the priorities of building owners, mortgage lenders, PACE administrators, and perhaps most importantly, contractors.</p>	<p>\$215,000 (majority to consultants to assist contractors, and a “success-fee” for projects that close funding).</p>	<p>Over the past year, BayREN has delivered 24 trainings in 4 Bay Area counties to over 110 individuals representing 90 unique contractor firms, and is now working with a project pipeline valued at over \$10 million.</p>	<p>No C-PACE projects closed yet.</p>	<p>Yes, private capital is provided by a number of PACE administrators active in the 9 county Bay Area region</p>
PAYS	<p>The BayREN PAYS® (Pay As You Save®) program is a joint effort of Bay Area cities and counties and their water agencies to partner in the implementation of a unique on-bill program that allows municipal water utility customers to pay for efficiency improvements through a monthly charge attached to their meter, with no up-front costs and the assurance that their utility bill savings will exceed the program charge.</p> <p>SF Environment’s primary responsibility is to coordinate with the SFPUC and to participate in region-wide activity.</p>	\$5,800	N/A	N/A	No
Codes and Standards	<p>The Codes and Standards program promotes an integrated, measurement-driven management process for enhancing energy-code compliance. SF Environment achieves this objective by hosting regional forums and workshops for stakeholders, such as building inspectors, consultants, designers, and contractors.</p>	\$32,000	N/A	N/A	N/A
Zero Net Energy Plan	<p>Research the feasibility of Zero Net Energy elements in building codes.</p>	\$5,000	N/A	N/A	N/A
Total BayREN Budget	Total energy efficiency program costs and savings.	\$1,943,558		\$180,000 @ \$0.18/kWh	

\$60,000 @ \$1/therm

Electricity Reduced: about
1,000,00-kWh

Natural Gas Reduced: about
60,000 Therms

San Francisco Energy Watch: San Francisco Department of the Environment on behalf of Pacific Gas and Electric

Administration	Implement activities to continue compliance with contractual goals, objectives, conditions and terms as described in the current Implementation Plan. Also, prepare and plan for next program cycle based on measured progress and forecasts.	\$225,000	N/A	N/A	N/A
Strategic Energy Resources (SER)	<p>Strategic Energy Resources (SER) is unique to Government and Community Partnerships (via PG&E) to fund specific non-resource expansion activities as approved by the California Public Utilities Commission (CPUC). Non-resource activities are those without a direct, claimable energy savings equivalent</p> <p>SER activities are meant to compliment but not duplicate administrative, marketing, and direct implementation activities such as SF Energy Watch. 2016 project examples of approved SER projects include:</p> <p>Revolving Microloan Fund for Small Business– The SF Environment Small Business EE Microloan Program (microloans) is a pilot program designed to enhance current energy efficiency program offerings by assisting the City’s small business owners to reduce energy use while lowering their operating costs through energy-saving upgrades. Together, SF Environment and Mission Asset Fund (MAF) are using funds from PG&E, the San Francisco Carbon Fund, and other sources to seed the microloans. The microloans will be used to help businesses pay for the co-pay (or net payment, less incentives) that the business must contribute to complete a SF Energy Watch project. Borrower repayments are expected to be less than \$150 per month for the maximum term of 18-months at 0% interest. Staff from SF Environment, including the SF Energy Watch team, serve as program administrators. MAF serves as the lending agent.</p> <p>Comprehensive Maintenance Program for SMB in Food & Beverage Sector – SF Energy Watch is serving forty (40) small businesses by helping them learn the importance and value of equipment maintenance, analyze recent energy usage data (up to 24 months). Through this project, SF Energy Watch is conducting surveys to gain more insight into existing maintenance practices, if any, and coordinate with a licensed refrigeration contractor to conduct comprehensive equipment evaluations.</p> <p>Investigating and Improving the Distribution of Energy Performance Outcomes from the Existing Commercial Building Ordinance – SF Energy Watch is working with other areas of the SF Environment Energy Team to determine the effectiveness of benchmarking and energy auditing on energy savings for buildings subject to the requirements of the City’s Existing Commercial Building Benchmarking Ordinance.</p>	\$900,000	NA	NA	Yes, Microloan
Marketing	SF Energy Watch provides direct outreach and support to businesses and through programs such as Step Up Power Down to help identify and implement energy upgrade improvements.	\$325,000	N/A	N/A	N/A
SF Energy Watch: Program	SF Energy Watch provides comprehensive energy assessments, technical assistance and financial incentives for energy upgrades to qualifying commercial and multifamily building owners as well as	\$2,480,000 for staff time	114 Commercial 262 Small Business	2016 savings: 6,000,00-kWh and 1,100 Peak kW in 2016	Yes, through PG&E’s On-Bill-Financing (OBF). In 2016, of 397 projects receiving incentives, 6 of

Implementation and Incentives	small and medium size business owners. Incentives are available to all customers receiving PG&E power in San Francisco, with enhanced incentives for hard to reach sectors.	\$1,240,277 paid out in incentives	21 Multifamily 3 Affordable	those received financing totaling \$215,118. The OBF loan covered 71% of project costs, with incentives covering the rest. There is no fixed budget for OBF financing.
Total Energy Watch Budget	Total energy efficiency program costs and savings.	\$5,170,277		\$1,240,277 @ \$0.21/kWh Electricity Reduced: 5,902,173-kWh
Energy Savings Assistance Program (ESAP): Pacific Gas and Electric				
Residential	Provides free energy retrofits to income-qualified single-family, multi-family and mobile home owners and renters to reduce their energy use and costs.	\$2,100,000 Estimated for 2016.	From July presentation – number of ESA enrollees in 2015-16 is listed as 6,137 – is this the number of people that received benefits from the program.	N/A
Weatherization Assistance Program: San Francisco Economic Opportunity Council				
Residential	The Weatherization Program provides free weatherization services to improve the energy efficiency of homes, including attic insulation, weather stripping, minor housing repairs, and related energy conservation measures.	\$1,600,000 (estimated)	Not provided.	Not provided.
TOTAL PUBLIC DOLLARS SPENT ON ENERGY EFFICIENCY PROGRAMS STUDIED BY THE COMMITTEE:				
\$11,993,640				

Low income energy assistance information available at: <http://www.liheapch.acf.hhs.gov/profiles/California.htm>

RECO – Residential Energy Conservation Ordinance: time of sale ordinance for all residential buildings. Requires some retrofits.

CLEO – Commercial Lighting Efficiency Ordinance: requires fluorescent fixture conversion to a more efficient technology.

ECBEBO – Existing Commercial Building Energy Benchmarking Ordinance: Requires benchmarking over 10,000 sqft and disclosure.

ESAP – Energy Saving Assistance Program for low-income

LIHEAP – Low Income Home Energy Assistance Program

WAP – Weatherization Assistance Program for low-income

CPUC – CA Public Utilities Commission

CAEEC – CA Energy Efficiency Coordinating Committee

CEC - CA Energy Commission

CAISO – CA Independent Systems Operator

CARB – CA Air Resources Board

CAEATFA – CA Alternative Energy and Advanced Transportation Financing Authority

ABAG – Association of Bay Area Governments

BayREN – Bay Regional Energy Network

BAAQMD – Bay Area Air Quality Management District

LGSEC – Local Government Sustainable Energy Coalition

TABLE 1.

San Francisco Housing Stock by Building Type, 2010–2014

Building Type	Single Family	2 to 4 Units	5 to 9 Units	10 to 19 Units	20 + Units	Total
2010 ACS5	123,951	79,774	37,088	37,656	93,496	372,560*
Net Added 2011–2014	59	134	61	319	6,464	7,037
TOTAL	124,010	79,878	37,149	37,975	99,960	379,597

Source: U.S. Census Bureau; Planning Department

* This total includes other "housing" types that the Census Bureau counts, such as mobile homes, RVs, vans, and houseboats.