

Local Government Programs and Initiatives

An update to Appendix A of the 2002 LGEEP report,
“Review of Local Government Energy Efficiency Programs in California”

Prepared by
ABAG Energy Watch: A joint project of Pacific Gas and Electric Company and
the Association of Bay Area Governments

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Introduction

This document is a summary of Local Government Programs and Initiatives, which builds upon and updates Appendix A of the 2002 report entitled, *A Review of Local Government Energy Efficiency Programs in California*. The 2002 report was prepared for the Pacific Gas and Electric Company (PG&E) by Energy Solutions, of Oakland, CA, as part of the PG&E Local Government Energy Efficiency Program (LGEEP). The report was updated by requesting information via emails and phone calls to the agencies in the 2002 document, as well as internet searches for information about policy and program activities of California agencies. (Internet search results also identified the Burlington, VT program.)

The report is divided into two major sections. The first section is a table summarizing local government programs sorted by agency (in alphabetical order). The second section provides descriptions of each of these programs, grouped by **California** Local Government Programs/Initiatives and **Regional CA** Local Government Programs/Initiatives, and provides an innovative, successful program that addresses the multi-family housing market in **Burlington, VT**.

The Association of Bay Area Governments (ABAG) Energy Watch program, under which this report was prepared, assists local governments to implement cost-effective, energy saving projects in public facilities. All services are free to eligible, enrolled local governments and include:

- Energy efficiency policy assistance, including community-wide programs and ordinances
- Facility energy use analyses, including greenhouse gas emissions quantification
- Technical assistance ranging from equipment retrofits to retro-commissioning
- Assistance obtaining contractor services and project financing
- Incentives to help pay for energy efficiency projects

For more information on ABAG Energy Watch, please visit <http://www.abag.ca.gov/abagenergywatch/>.

Gerald Lahr (ABAG) is the Administrator for the ABAG Energy Watch program. Erika Walther (Energy Solutions) managed the development and editing of the report. Pat Stoner and Josh Meyer of the Local Government Commission researched and primarily authored the report. For further information on this report, please contact Erika Walther at 510-482-4420 x224 or ewalther@energy-solution.com.

The ABAG Energy Watch Partnership program team would like to thank those local government representatives, many of whom are listed as contacts in the local government program/ initiative summaries beginning on page 9, who provided information and assistance in updating this report.

Local Government Programs/Initiatives- Summary

Table A1 – Local Government Energy Program/Initiative Matrix <i>City or County</i>	Program Description	Market Sectors	Program Element						
			Education/ Information	Recognition/ Labeling	Incentives	Regulatory/ Ordinances / Policies	Technical Assistance	Procurement/ Bulk Purchase	
Alameda County	Green Building in Alameda County Program	Residential and Nonresidential New Construction	✓					✓	
Alameda County	County Facilities Retrofits for Energy Efficiency and Distributed Generation	Local Government New Construction and Existing Facilities			✓			✓	
Alameda and Contra Costa Counties	Smart Lights Small Business Program	Nonresidential (Small Commercial) Existing Facilities			✓			✓	
All Counties - Build It Green	GreenPoint Rated Program	Residential New Construction	✓	✓	✓				

Table A1 – Local Government Energy Program/Initiative Matrix <i>City or County</i>	Program Description	Market Sectors	Program Element					
			Education/ Information	Recognition/ Labeling	Incentives	Regulatory/ Ordinances / Policies	Technical Assistance	Procurement/ Bulk Purchase
Berkeley	Residential Energy Conservation Ordinance (RECO)	Residential Existing				✓		
Berkeley	Weatherization and Home Safety Repair Programs	Residential Existing					✓	
Berkeley	Commercial Energy Conservation Ordinance (CECO)	Nonresidential Existing				✓		
Berkeley	City Facilities Retrofits for Energy Efficiency; Exceeding Title 24 for Selected New Construction	Local Government New Construction and Existing Facilities					✓	
Berkeley	Green Restaurant Initiative	Nonresidential Existing Facilities	✓				✓	
Berkeley	Green Home EXPO and Energy Symposium	Residential and Small Nonresidential	✓					

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			Education/ Information	Recognition/ Labeling	Incentives	Regulatory/ Ordinances / Policies	Technical Assistance	Procurement/ Bulk Purchase
Berkeley	Sustainability Pledge Initiative	Nonresidential Existing Facilities	✓	✓				
Burlington, VT	Minimum Rental Housing Energy Efficiency Standards Ordinance	Existing Residential Rental Units			✓	✓	✓	
Chula Vista	Municipal Building Energy Efficiency Guidelines	Local Government New and Existing Facilities				✓		
Chula Vista	Residential & Business Energy Efficiency Program	Existing Residential and Commercial Facilities					✓	
Los Angeles County	County Facilities Energy Retrofits	Local Government Existing Facilities					✓	

Table A1 – Local Government Energy Program/Initiative Matrix City or County	Program Description	Market Sectors	Program Element					
			Education/ Information	Recognition/ Labeling	Incentives	Regulatory/ Ordinances / Policies	Technical Assistance	Procurement/ Bulk Purchase
Marin County	Building Energy Efficient Structures Today (BEST) Program	Residential/ Nonresidential New and Existing Facilities	✓		✓		✓	
Marin County	Single Family Dwelling Energy Efficiency Ordinance	Residential New Construction				✓		
Oakland	Sustainable Development Initiative/ Green Resource Center	Residential/ Nonresidential New Construction and Existing; Standards for Local Government New Construction	✓			✓		
Oakland	Incentives for Installing Photovoltaics	Residential Existing			✓			

Table A1 – Local Government Energy Program/Initiative Matrix City or County	Program Description	Market Sectors	Program Element					
			Education/ Information	Recognition/ Labeling	Incentives	Regulatory/ Ordinances / Policies	Technical Assistance	Procurement/ Bulk Purchase
Oakland	City Facilities Retrofits for Energy Efficiency; Design Review of New Construction; New Building Performance Contract	Local Government New Construction and Existing Facilities					✓	
Redwood Coast Energy Authority; Humboldt County	Energy Efficiency Tool Lending Bank and Energy Library	Residential and Nonresidential Existing Facilities					✓	
San Diego	Green Schools Program	Nonresidential Existing (School) Facilities	✓		✓		✓	
San Diego	City Facilities Retrofits for Energy Efficiency and Renewables; Design Standards for New City Buildings	Local Government New and Existing Facilities					✓	

Table A1 – Local Government Energy Program/Initiative Matrix City or County	Program Description	Market Sectors	Program Element					
			Education/ Information	Recognition/ Labeling	Incentives	Regulatory/ Ordinances/ Policies	Technical Assistance	Procurement/ Bulk Purchase
San Diego County	Incentives for Green Building and for Photovoltaics	Residential/ nonresidential New Construction and Existing Facilities			✓			
City and County of San Francisco	Small Business Direct Install (SBDI) Program	Nonresidential Existing Facilities			✓		✓	
City and County of San Francisco	Multifamily and Commercial PLUS Program	Multifamily and Nonresidential Existing Facilities	✓		✓		✓	
City and County of San Francisco	Residential Energy Conservation Ordinance	Residential Existing				✓		
San Jose	Green Building Program Policies and Guidelines	Residential and Nonresidential New Construction	✓	✓	✓	✓		

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			Education/ Information	Recognition/ Labeling	Incentives	Regulatory/ Ordinances/ Policies	Technical Assistance	Procurement/ Bulk Purchase
San Luis Obispo County	Permit Fee Reduction if Exceed Title 24 Building Standards	Residential New Construction		✓	✓			
Santa Barbara County	Innovative Building Design Review Committee	Residential/ Nonresidential New Construction	✓		✓		✓	
Santa Monica	Green Building Ordinance/ Green Building Design and Construction Guidelines	New Construction	✓	✓	✓	✓		
Santa Monica	Water Fixtures Retrofit Upon Sale Ordinance	Residential/ Nonresidential Existing Buildings				✓		
Santa Monica	City Facilities Retrofits for Energy Efficiency	Local Government Existing Facilities					✓	

Table A1 – Local Government Energy Program/Initiative Matrix City or County	Program Description	Market Sectors	Program Element					
			Education/ Information	Recognition/ Labeling	Incentives	Regulatory/ Ordinances/ Policies	Technical Assistance	Procurement/ Bulk Purchase
Various: Brea, Cathedral City, Corona, Hermosa Beach, Irvine, Moreno Valley, San Bernardino, Santa Clarita, Santa Monica, West Hollywood	Community Energy Partnership	Municipal Facilities	✓				✓	
Various: La Quinta, Los Altos hills, Marin County, Mill Valley, Palm Desert, Rohnert Park, Santa Monica	Exceeding Title 24 Building Energy Efficiency Standards	New Construction				✓		
Various: Alameda, Contra Costa, Marin, Napa, San Diego, San Francisco, Santa Clara, and Sonoma Counties; City of Santa Monica, and Monterey Bay Area	Green Business Program	Nonresidential Existing		✓				

California Local Government Programs/Initiatives- Descriptions

Program/Initiative: *Green Building in Alameda County Program*

City/County: *County of Alameda*

Program Elements: *Education and Information; Grant Assistance for Public Agencies*

Market Sectors: *Residential and Nonresidential New Construction*

Description

Concept

Provide information and resources to local governments, and construction and building industry personnel to reduce impact of buildings on the environment.

Objective

Debris from construction and demolition projects comprises over 20% of the materials disposed in Alameda County landfills. To reduce this waste, the Green Building in Alameda County Program has formed a public/private partnership with the construction and building industry.

How it works

The Green Building in Alameda County Program has formed a public/private partnership with the construction and building industry. The program serves three target markets: Alameda County Waste Management Authority's (ACWMA) seventeen member agencies; design and building industry professionals; and, residents of Alameda County.

The Green Building Program promotes the use of the US Green Building Council's Leadership in Energy and Environmental Design (LEED™) Green Building Rating System for commercial and civic buildings, and the ACWMA Green Building Guidelines for residential construction. With the assistance of local building professionals and building officials, the Green Building Program developed comprehensive Green Building Guidelines for New Residential Construction (2000), Home Remodeling (2001) and Multifamily Housing (2004).

To accompany the residential guidelines, the Green Building Program created the Green Points system to evaluate single-family projects and is currently developing a similar tool for multifamily housing. ACWMA has also recently developed Bay- Friendly Landscaping and Gardening Guidelines.

The Green Building Program offers a full range of educational opportunities to increase general awareness of green building and provide ongoing professional development.

The Green Building Program is also a founding sponsor of Bay Area Build It Green (BABIG), a non-profit organization that provides Bay Area homeowners, homebuyers, remodelers, and builders with a trusted resource for information on green building and its various applications. In collaboration with BABIG, the Green Building Program is engaged in consumer marketing activities to increase the demand for green homes.

The Green Building Program provides presentations, trainings, and technical assistance to staff and elected officials of ACWMA's 17 member agencies in adoption and implementation of a Civic Green Building Ordinance, a policy to require that green building practices are incorporated in publicly owned and funded buildings.

The Green Building Program has created model documents, which are available for download at www.stopwaste.org.

The Materials Database, offered in collaboration with Bay Area Build It Green, is a searchable online database of green building products, local vendors and service providers that correspond with the ACWMA Green Building Guidelines: www.build-green.org/guide.

History/Status

Since 2001, the Green Building Program has provided design assistance services to over 70 public and public-benefit projects at the request of ACWMA's 17 member agencies. In addition, the program has awarded over \$850,000 in Green Building Grants. Examples of projects that have received design assistance and grants include: City Halls, Libraries, Fire Stations, Public Office Buildings, Educational Facilities, Affordable Housing Developments, Senior Centers, Community Centers, Justice Facilities, and Courthouses.

The Green Building Program also offers technical assistance to for-profit builders and developers interested in incorporating green materials and methods into residential projects. These services are provided in collaboration with Bay Area Build It Green and include organizational capacity building, design assistance and project marketing.

A number of Bay Area communities have adopted the Alameda County Green Building Guidelines and use the Green Points program administered by Build It Green.

Contact Information

Wes Sullens

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Program/Initiative: *County Facilities Retrofits for Energy Efficiency and Distributed Generation*

City/County: *County of Alameda*

Program Elements: *Existing Facility Upgrades using an Energy Manager and some In-house Implementation, Some Performance Contracts*

Market Sectors: *Local Government New and Existing Facilities*

Description

Concept

Alameda County has actively participated in numerous Pacific Gas and Electric Company (PG&E) and California Energy Commission (CEC) sponsored energy efficiency rebate and demand-side management programs for the past 10 years. Energy cost savings from earlier projects helped pay for later work. Energy retrofit projects achieved through these efforts focus on replacing old, inefficient, energy-consuming equipment with new energy-efficient equipment throughout County-owned facilities. Since the 2001 Energy Crisis, the project emphasis has included shifting peak electricity use to off-peak periods and using green and ultra-clean distributed generation of electricity at County facilities.

Objective

Alameda County's Energy Program's primary motivation is to reduce the costs of electricity and natural gas usage in Alameda County facilities. Historically, the County's program has been driven more by cost savings than by environmental benefits. In addition to lower energy costs, energy retrofits have provided many needed facility upgrades, with facility occupants benefiting from increased lighting levels, better temperature comfort, improved indoor air quality, and reduced carbon emissions from County operations.

How it works

In the 1990s, the County participated in PG&E's "Power Saving Partners" program, a "DSM bidding" program that paid an incentive for bulk electricity reductions through energy efficiency. The County implemented the projects, repaid the capital costs from savings, and banked the incentive funds to support future energy projects. Since 1990, the Energy Program has managed four major "performance contracts" with energy service companies (ESCOs) implementing large projects at the County Courthouse, North County facilities, South County facilities, and hospitals. The Energy Manager used in-house staff and a maintenance contract to accomplish a large fluorescent lighting conversion to efficient T8 lamp/ electronic ballast technology. In 2002, the County leveraged the energy savings from a major chiller retrofit at the County Jail to help finance the largest installation of rooftop photovoltaics in North America.

One key to success has been its accounting. Some public agencies have had difficulties using a project's energy savings to leverage and repay capital financing. For Alameda County, however, the utility budget line item has been used to directly repay debt service for energy projects. Another key has been leveraging the expertise of an in-house energy manager for no-cost/ low-cost savings. The County has saved nearly \$1 million per year through rate schedule analysis, and has participated in natural gas and electricity procurement programs. The County is currently the #1 onsite solar-powered local government in the Country, with a total of 3.1 MW of solar power installations at 9 County facilities. In 2006, the County installed California's first megawatt fuel cell cogeneration plant at its Santa Rita Jail.

History/Status

The County's Energy Manager, who is responsible for implementing County facility energy projects, has been in place since 1990.

Evaluation Overall effectiveness and accomplishments

The program has accomplished projects and services worth more than \$6 million per year in reduced energy costs. Through the PV and fuel cell projects, the program has also helped reduce the County's risk from electricity price volatility.

The following list includes major projects over the last sixteen years.

Implementation

Year	Program Name	Utility Cost Savings
1991-1993	North County Energy Retrofit Program	\$691,000 per year
1993-1995	South County Energy Retrofit Program	\$612,000 per year
1993/1995	Hospital Facilities Improvement Program	\$1,260,000 per year
1993/1998	Santa Rita Jail Energy Retrofit Program	\$485,000 per year
1996	North County Lighting Retrofit Program	\$240,000 per year
1996-1998	North County Jail/OPMC Energy Retrofit Program	\$360,000 per year
1994-2007	GSA Rate Schedule Analysis	\$930,000 per year
1994-2007	Electrical and Natural Gas Procurement Program	\$153,000 per year
1999-2007	Integration & Expansion of the Countywide BAS	\$70,000 per year
2001/2002	Santa Rita Jail's 1.18mW Integrated Rooftop Photovoltaic System and Chiller Plant Energy-Efficiency Measures	\$420,000 per year
2001	Countywide Lighting Retrofit Program, Phase 2	\$73,000 per year
2001	Office Equipment Efficiency Program	\$43,000 per year
2001	Demand Response Controls Upgrade: Up to 1.2 mW Savings	N/A
2001	Performance-based Energy standards for new County construction	N/A
2001	Electronic Data Interface (EDI) system to enable the County to electronically receive and pay all PG&E utility bills.	N/A
2004	Administration Building HVAC Upgrade Project	\$57,000 per year
2005	Berkeley Courthouse Efficiency Upgrade Project	\$13,000 per year
2004-2005	1.1 MW Solar II Project	\$275,000 per year
2006	1 MW Santa Rita Jail Fuel Cell Cogeneration Project	\$260,000 per year
2005-2006	Juvenile Justice Center Energy Efficiency Project	\$164,000 per year
2007	Juvenile Justice Center 882 kW Solar Power Project	\$187,000 per year
1991-2007	Total Energy Program	\$6,293,000 per year

Source: Alameda County General Services Administration

Contact Information

Matt Muniz, Energy Program Manager
Alameda County GSA/ Technical Services
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Program/Initiative: *Smart Lights Small Business Program*
City/County: *Alameda and Contra Costa Counties*
Program Elements: *Incentives/ Technical Assistance*
Market Sectors: *Nonresidential (Small Commercial) Existing Facilities*

Description

Concept

Provide heavily discounted and comprehensive energy efficiency audit and installation services to small businesses throughout northern Alameda County and western, central and eastern Contra Costa County.

Objective

Reduce energy use and help mitigate high electricity costs for small businesses in Alameda and Contra Costa Counties.

How it works

Pacific Gas and Electric Company (PG&E) contracts with the Community Energy Services Corporation (CESC) to operate the program. CESC, a 501 (c) 3 non-profit organization, has been delivering community-based services focused on health, safety, and energy conservation to the City of Berkeley since 1986. Small businesses with an energy demand under 100 kW are eligible for Smart Lights services which include:

- Expert assessment of specific lighting and refrigeration needs.
- Negotiated discounts with qualified installation contractors.
- Installation scheduling and quality control inspection.
- Cash incentives towards installation and equipment covering 30 percent to 60 percent of project costs. Incentives are based on estimated energy savings.
- Minimal paperwork for business owner.

History/Status

The California Public Utilities Commission provided \$2,000,000 to the City of Berkeley to develop and initially operate a Small Business Energy Efficiency program. Through PG&E's Local Government Partnership, East Bay Energy Watch, Community Energy Services has since expanded the Smart Lights Program to service small businesses throughout Alameda and Contra Costa Counties.

Evaluation

In 2004, ICF Consulting (ICF) conducted an impact evaluation of the Smart Lights small commercial retrofit program for program activity in 2002 and 2003. A statistically significant random sample of post-installation inspections verified that the actual savings were statistically equal to the claimed savings. The recommended net-to-gross ratio for the Program is 0.96, based on research of relevant literature. The Program was found to be cost effective using the Total Resource Cost (TRC) test (benefit/cost ratio of 1.22) and the Participant Cost test (benefit/cost ratio of 2.70).

Contact Information

Maria Sanders, Program Director of the Community Energy Services Corporation

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Program/Initiative: *GreenPoint Rated Program*
City/County: *All Counties- Build It Green*
Program Elements: *Education and Information/ Guidelines and Checklists*
Market Sectors: *Residential New Construction*

Description

Concept

The program aims to stimulate market demand for green homes by addressing two barriers to green building in the residential market:

- Builders and contractors perceive their customers to be uninterested in green features, and since they do not pay the utilities or upkeep of the home, they tend to be unconcerned about the long-term financial and health impacts of the houses.
- Homeowners lack basic information about technical aspects of green building.

Green rating and labeling help the builders by providing market incentives and the buyers by helping them identify and evaluate green buildings without having to become experts.

Objective

To promote high-performance homes and best practices in residential construction by:

- Establishing a highly visible program identity and label to distinguish green homes from conventional homes
- Maintaining the integrity of the program name, logo, and market identity through credible third party inspection and verification
- Fostering positive interactions between GreenPoint raters and building professionals
- Documenting the full extent of resource conservation benefits green building practices deliver.

How it works

Ultimately the goal of green building is to ensure that communities are environmentally, socially, and economically sustainable. The GreenPoint program offers partnership opportunities to local governments to allow them to tailor the program to their local needs. The program offers two levels of local government participation:

- Consumer Education Partner – The local government partners in consumer education and may offer local incentives to further encourage builder participation. Build It Green provides turn-key home rating services, and certified homes are labeled through Build It Green.
- Implementation Partner – The local government participates in consumer education, offers local incentives to further encourage builder participation, and may elect to handle verification activities. The local government and Build It Green jointly develop protocols for coordinating program administration and project tracking. Certified homes may be jointly labeled through the local government and Build It Green.

History/Status

GreenPoint Rated is an outgrowth of successful green building programs and resources that have been serving Californians since 2000. Its origins lie in the Green Building Guidelines first developed by Green Building in Alameda County and now managed by Build It Green to serve the entire state.

The Guidelines, and the rating and third-party verification system that grew out of them, were developed and repeatedly refined by a diverse set of residential building stakeholders, including production builders, contractors, architects and designers, multifamily home developers, state and local government leaders, regional and national building-science experts, product manufacturers and suppliers, and green building advocates. In the past six years, numerous local governments have adopted and use the Guidelines, and many encourage or require third-party rating.

Build It Green is the result of the 2005 merger of the Green Resource Center (est. 1999) and Bay Area Build It Green (est. 2003.) Bay Area Build It Green was formed in 2003 by a number of local and regionally focused public agencies, building industry professionals, manufactures, and suppliers. The Green Resource Center started in 1999 as a joint project of the City of Berkeley, the Northern California Chapter of Architects, Designers and Planners for Social Responsibility, and the Sustainable Business Alliance.

Contact Information

Build It Green

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Program/Initiative: *Residential Energy Conservation Ordinance*
City/County: *City of Berkeley*
Program Elements: *Regulatory-Ordinance*
Market Sectors: *Residential Existing Facilities*

Description

Concept

The City of Berkeley Residential Energy Conservation Ordinance (RECO) states that every home or apartment building sold or undergoing renovations valued at \$50,000 or more must meet certain energy and water efficiency requirements.

Objective

RECO was adopted to improve the energy and water efficiency for existing residential properties in the City of Berkeley, including apartment buildings, condominiums, and live/work spaces.

How it works

One must schedule a RECO inspection when selling a home (\$100 fee for single-family unit) or renovating a property (fee part of comprehensive building code compliance inspection). Requirements include: water-efficient toilets, showerheads, faucet aerators; water heaters insulation wrap; insulating all pipes for hot and cold water piping, and recirculating heating systems; weatherstripping exterior doors; sealing and insulating furnace duct work; dampers, doors or closures on fireplace chimneys; ceiling insulation; replacing incandescent bulbs with compact fluorescent lamps (CFL) of at least 25 lumens/watt in common area lighting for multi-unit buildings. There is a limit to the amount of money that *must* be spent to meet RECO upgrades which is generally 0.75 percent of the property sales price when a single structure of two housing units or less is sold and 1 percent of renovation costs when a property is undergoing a renovation of \$50,000 or more. If one's building does not receive approval on the first inspection, one has to rectify the non-complying items and schedule a re-inspection. A re-inspection costs \$50 for a single-family unit, with an extra \$5 for each additional unit.

History/Status

RECO was developed by the City's Energy Office and adopted by the City Council in 1987. The program is currently in effect with the enforcement role within the Department of Building Inspection.

Contact Information

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Program/Initiative: *Weatherization and Home Safety Repair Programs*
City/County: *City of Berkeley*
Program Elements: *Technical Assistance*
Market Sectors: *Residential Existing Facilities*

Description

Concept

The City provides free weatherization and minor home repair services through operating the State Low- Income Home Energy Assistance Program and the Home Safety Repair Program. The programs are funded by LIHEAP, the U.S. Department of Energy, the U.S. Department of Housing and Urban Development and the City of Berkeley. Services vary by program and include attic insulation, weatherstripping, water heater blankets, low-flow showerheads, duct insulation, high efficiency lighting, window repairs/replacement, etc. The Home Safety Repair Program provides free home rehabilitation and seismic retrofit service for income qualified Berkeley residents (mostly seniors).

Objective

To improve the housing stock of low-income residents of the City.

How it works

The City operates the State Low-Income Weatherization Program (LIWP). The Home Safety Repair Program offers services to some residents that do not meet the income requirements of the LIWP. The City contracts with the Community Energy Services Corporation (CESC) to operate the program Home Safety Repair Program. CESC, a 501 (c) 3, has been delivering community based services focused on health, safety, and primarily energy conservation to the City of Berkeley since 1986. CESC is a licensed contractor and has a crew of four people to provide the services to 250–300 homes per year. The Home Safety Repair Program is funded through Community Block Grant Funds.

History/Status

The Home Safety Repair Program has been operating for approximately 13 years.

Lessons Learned

The Home Safety Repair Program started out training “at-risk” youth to provide the services, but this youth training aspect was eventually dropped in favor of hiring and utilizing a regular experienced crew. Currently the program serves 150 low-income households annually, performing such work as wheelchair ramps, major plumbing and termite repair work.

Contact Information

Community Energy Services Corporation

Phone: (510) 981-7770

Web: www.ci.berkeley.ca.us/ContentDisplay.aspx?id=10798

Web: www.ebenergy.org

Program/Initiative: *Commercial Energy Conservation Ordinance (CECO)*
City/County: *City of Berkeley*
Program Elements: *Regulatory-Ordinance*
Market Sectors: *Nonresidential Existing Facilities*

Description

Concept

The City of Berkeley Commercial Energy Conservation Ordinance (CECO) states that every commercial building sold or undergoing renovations valued at \$50,000 or more must meet certain energy and water efficiency requirements.

Objective

CECO was adopted to improve the energy and water efficiency for existing commercial properties in the City of Berkeley.

How it works

Applicants must schedule a CECO inspection when selling commercial property or submitting plans for renovations of more than \$50,000, or additions, which will increase the conditioned area of the commercial property by more than 10 percent. The applicant completes a CECO application form and submits it to the Permit Service Center. The applicant then schedules an Energy Audit from an authorized CECO Auditor. The Auditor completes the audit and files the documents with the City within ten working days after receiving the request. The Auditor will expedite the CECO audit for double the fee. Energy Audit costs depend upon the size of the building: Class I Audit is \$180.00/audit for buildings 30,000 sq. ft. or less, or \$0.01/square foot of total conditioned floor space for buildings greater than 30,000 sq. ft. and includes all energy systems except for hot water boilers or steam boilers, multi-zone HVAC systems, chillers or commercial refrigeration equipment; Class II Audit: \$250/audit for 30,000 sq. ft. or less, or \$0.02/square foot of total conditioned floor space for buildings greater than 30,000 sq. ft. and includes ALL systems. The applicant is responsible for installing all the measures identified, up to the expenditure limit for the building. When the building passes inspection, the city provides the applicant with a form documenting all installed and compliant measures.

History/Status

CECO was developed by the City's Energy Office and adopted by the City Council in 1994, and is enforced by the Department of Planning.

Evaluation

The CECO ordinance is heavily endorsed by the City Council and well supported by the permitting and building inspection staff.

Contact Information

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Program/Initiative: *City Facilities Retrofits for Energy Efficiency; Exceeding Title 24 for Selected New Construction*

City/County: *City of Berkeley*

Program Elements: *Energy Efficiency Retrofits using an Energy Manager and Nonprofit Organization for Implementation*

Market Sectors: *Local Government New and Existing Facilities*

Description

Concept

Dedicate staff resources to facilitate energy retrofits in municipally owned and operated facilities; include energy efficient design in municipal new construction and rehabilitation projects; and, reduce fuel used by City's fleet vehicles.

Objective

Reduce the amount of energy used in existing and new municipal facilities, and by City owned vehicles; save taxpayer's money and reduce greenhouse emissions

How it works

Utilizing resources available from Pacific Gas and Electric Company and California Energy Commission, the City of Berkeley's Energy staff implements comprehensive energy efficiency retrofits in all municipally-owned and operated facilities; applies energy conservation measures to new construction and renovation projects to exceed California Energy Code Title 24 standards; and includes the incorporation of compressed natural gas (CNG) and electric vehicles into the City's fleet vehicles. Recent retrofit work has netted a savings of 2.1 million kW of electricity and over 37,540 therms of natural gas, a cost savings of more than \$370,000 annually for Berkeley taxpayers.

Representative projects include:

1. Installing compact fluorescents, T-8 lamps and electronic ballasts, occupancy sensors, and upgrading heating and ventilation systems in existing buildings. Currently engaged in upgrading sites for new technologies.
2. Replacing red and green traffic light bulbs and orange pedestrian "hand" bulbs at all 126 intersections from inefficient incandescent bulbs to LEDs saving over \$143,000 annually.
3. The design of the newly-remodeled Civic Center Building included using natural cooling stacks that eliminated the need for mechanical ventilation and air conditioning; using automatic dimming controls to reduce the amount of electric lighting in proportion to increasing daylight levels; use of recycled cooking oil from local restaurants to run the back-up generators. The Civic Center won a Savings by Design Energy Efficiency Integration Award.
4. The newly constructed Public Safety Building exceeds the 1998 California Energy Code Title 24 standards by more than 20 percent, and at no additional expense to the city or its residents.
5. Installing radiant barrier-type pool covers and installing lighting occupancy sensors within all three Recreational Swim Centers.
6. Installation of four municipal solar projects: An 850 gallon solar thermal installation serving one swim center; a 19 kW solar electric system serving the City's Public Works Corporation Yard, and at the City's Shorebird Park Nature Center, a solar thermal

system that serves all heating and domestic hot water needs, and a 5 kW solar electric system. Additionally, the City has just installed the foundation for a new 1.8 kW wind turbine to power the classroom building. Berkeley is the first city in the U.S. to own a wind turbine to directly power one of its buildings.

History/Status

The City's Office of Energy and Sustainable Development has been providing energy services to the municipal, residential and commercial markets since the mid 1980s.

Evaluation

With recent energy retrofit work done on City-owned buildings, the City of Berkeley is currently saving more than 2.26 million kilowatt hours of electricity and 37,520 therms of heat (primarily natural gas) annually. This amounts to a savings of more than \$446,000 for taxpayers annually. It also prevents the release of 1,244 tons of CO₂ emissions into the atmosphere.

How the program/initiative is perceived by Council/Board or staff

City Council is very supportive of the City's Office of Energy & Sustainable Development and efforts to reduce the City's energy use, and most recently approved funding for energy efficiency projects at several fire stations and the Sather Gate Parking Garage.

Contact Information

Alice La Pierre
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Program/Initiative: *Green Restaurant Initiative*
City/County: *City of Berkeley*
Program Elements: *Integrated Environmental Services to Narrowly Targeted Market*
Market Sectors: *Nonresidential Existing Facilities*

Description

Concept

The Green Restaurant Initiative provides information, referral and ongoing support to help restaurants implement resource-conserving practices.

Objective

The Green Restaurant Initiative seeks to provide a full range of relevant environmental services to Berkeley restaurants.

How it works

The Green Restaurant Initiative provides information, referral and ongoing support to help restaurants implement resource conservation practices. An outreach staff person works with local merchant associations to identify qualified leads and then works with restaurant owners introducing them to energy efficiency, solid waste reduction, water conservation and storm water management resources. The outreach staff refers services to the interested restaurants and provides consistent follow up to ensure participation. For restaurants interested in the full array of environmental services, the outreach staffer encourages participation in the Bay Area Green Certification Program to promote the businesses' environmental accomplishments. A special website promoting their accomplishments is under development.

History/Status

The program was piloted in the City of Berkeley's Office of Energy and Sustainable Development in the beginning of 2006 and has gained funding from Pacific Gas and Electric Company and the City of Berkeley's Solid Waste Division to spin off as a project of Community Energy Services Corporation and Sustainable Berkeley in the fall of the same year. It is now sunsetted.

Contact Information

Jennifer Cogley
Sustainable Business Coordinator
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Program/Initiative: *Green Home EXPO and Energy Symposium*

City/County: *City of Berkeley*

Program Elements: *Free Energy Efficiency Products and Materials, using Energy Staff and Nonprofit Organizations for Implementation*

Market Sectors: *Residential and Small Commercial*

Description

Concept

Provide free energy efficiency products and information to the public at a free public event, by leveraging the free services offered by local nonprofits and the City of Berkeley.

Objective

To get residents and businesses in Berkeley to become more energy efficient by accessing available city, utility and nonprofit programs.

How it works

Event consists of lectures on local energy and environmental programs and services, such as the City's low income weatherization program, free energy efficiency services provided by California Youth Energy Services program, free electronics recycling, expired medicine, battery and fluorescent lighting collection provided by local nonprofit organizations, and free information on City clean stormwater program, curbside recycling programs, and energy efficiency tips. Other exhibitors include renewable energy vendors, green building material suppliers, and environmentally-related nonprofit organizations.

History/Status

The City organized this event for four consecutive years. This event operates independently from City funding; it is self-supporting using funds raised from the sale of booth spaces sold to for-profit vendors. It has received a modest annual grant from Pacific Gas and Electric Company averaging \$2,200 per year, which has allowed it to increase advertising, print reusable banners, and pay for necessary items such as staging, sound systems, tables, chairs, portable toilets, and other ADA requirements. There may not be an EXPO in 2008 due to conflicts, but it is planned to come back in 2009.

How the program/initiative is perceived by Council/Board or staff

City Council is very supportive of this event.

Contact Information

Alice La Pierre

Energy Analyst and Event Director

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Program/Initiative: *Sustainability Pledge Initiative*

City/County: *City of Berkeley*

Program Elements: *Integrated Environmental Services to Large Commercial Energy Users*

Market Sectors: *Nonresidential Existing Facilities*

Description

Concept

The Sustainability Pledge Initiative engages Berkeley's large energy users in actively tracking and reducing Greenhouse Gas emissions. The program provides special emphasis on electricity and natural gas usage reduction.

Objective

Engage large institutions in Berkeley in the Climate Protection movement and highlight their successes in reducing energy usage and carbon emissions.

How it works

An outreach staff person works with local institutions including municipal government, business networking groups and merchant associations to identify qualified leads. Staff then works with CEO level decision makers to focus on energy efficiency opportunities in their businesses. Success stories of their accomplishments are written up and shared with the press as well as other local businesses as an inspiration for their peers to also become involved.

History/Status

The Pledge Program started operating in January 2007, and as of August had 10 signatories. The energy and CO₂ data are still being gathered from the participants. The project is currently on hold.

There are success stories and case studies available on the program's website:
www.sustainableberkeley.org

Contact Information

Jennifer Cogley

Sustainable Business Coordinator

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Program/Initiative: *Municipal Building Energy Efficiency Guidelines*
City/County: *City of Chula Vista*
Program Elements: *Regulatory- Ordinance*
Market Sectors: *Local Government New and Existing Facilities*

Description

Concept

Create a clear and quantifiable policy regarding energy efficiency and management in City buildings and facilities.

Objective

Reduce overall energy demand while expanding renewable energy use in existing and new municipal facilities.

How it works

The City of Chula Vista adopted a comprehensive *Building Energy Efficiency Policy* to establish energy conservation and renewable energy guidelines for City buildings and facilities. The policy outlined the following guidelines:

- Maximize passive cooling/heating opportunities in the design of new buildings
- Exceed Title 24 requirements by at least 20% in new and renovated buildings over 4,500 square feet
- Upgrade existing buildings' energy systems as new technology becomes available
- Design new buildings to generate 20% of their energy load with on-site renewable energy systems
- Purchase up to 100% of municipal building energy load from renewable energy sources (as long as costs are comparable to local utility rates)
- Equip City facilities with ENERGY STAR qualified products

History/Status

The policy has resulted in the construction of new, energy-efficient buildings that will reduce the City's long-term energy costs. For example, the new Chula Vista Police Headquarters was built to exceed Title 24 standards by 21% through the use of daylighting designs, double-glazed windows, and efficient HVAC systems. In addition, the building's 30 kW solar photovoltaic array provides 50% of the lighting needs for the 24-hour facility. Compared to the old police headquarters, the new facility's energy costs per square foot is 40% less. Furthermore, the success of the *Building Energy Efficiency Policy* has helped Chula Vista reduce its municipal greenhouse gas emissions by 18% compared to 1990 levels and become a climate protection leader in the region.

Contact Information

Michael Meacham
Director of Conservation and Environmental Services
Phone: (619) 409-5870

Program/Initiative: *Residential & Business Energy Efficiency Program*
City/County: *City of Chula Vista*
Program Elements: *Energy Audits and Energy Efficiency Retrofits*
Market Sectors: *Existing Residential and Commercial Facilities*

Description

Concept

Promote energy efficiency throughout the community by identifying energy-saving opportunities and facilitating retrofit projects.

Objective

Reduce overall energy use and peak demand by Chula Vista residents and businesses through a community-based program.

How it works

The City of Chula Vista and San Diego Gas and Electric Company have created the *Empower Partnership* to identify and facilitate energy efficiency retrofits in the community. The partnership program has three main components:

- Energy Assessments – provides a FREE comprehensive energy assessment of residential homes and business facilities to help identify energy-saving opportunities and incentives for applicable retrofit measures.
- Lighting Exchange – provides residents and businesses with FREE replacement of incandescent light bulbs with energy-efficient compact fluorescent lamps (CFLs) including dimmable, outdoor and 3-way models.
- Spray Valve Exchange – provides restaurants and food service facilities with FREE replacement of pre-rinse spray valves with energy-efficient (and water-efficient) models.

History/Status

Within the *Empower Partnership's* first year, approximately 1,000 businesses and residents participated in the program producing annual energy savings of almost 1 million kWh of electricity and 100,000 therms of natural gas. Furthermore, the *EmPower Partnership* is helping Chula Vista to continue reducing its per capita greenhouse gas emissions and become a climate protection leader in the region.

Contact Information

Michael Meacham
Director of Conservation and Environmental Services
Phone: (619) 409-5870

Program/Initiative: *County Facilities Energy Retrofits*
City/County: *Los Angeles County*
Program Elements: *Existing Facility Upgrades using In-House Project Managers and Performance Contracts*
Market Sectors: *Local Government Existing Facilities*

Description

Concept

The County's Energy Management Division (EMD) is responsible for ongoing efforts in the areas of energy retrofits and load management.

Objective

Reduce energy cost and demand while minimizing interruptions for recipient departments.

How it works

The EMD has completed a variety of energy efficiency upgrade projects in approximately 50 percent of the usable space occupied by the 38 County departments. This is accomplished by pre-selecting and qualifying a list of Energy Service Companies (ESCOs). After a candidate facility is identified, ESCOs conduct an audit of the facility and submit competitive bids for the project. The selected ESCO then proceeds with a turnkey project with guaranteed savings. This mechanism allows continual implementation of large comprehensive projects without the interruptions that can sometime occur with annual budget cycles and contract approvals (once the project is approved by the Board and awarded to the selected ESCO).

Most project installation is done on weekends and at night to minimize interruptions. In the past, most projects have been funded by the County's Capital Lease program. More recently requirements for committing County property as collateral and the County's debt ceiling limit have made this program unattractive and likely not available for current energy projects. The County was recently awarded Public Goods Charge (PGC) funds from the California Public Utilities Commission to implement County energy retrofit projects.

History/Status

The County has invested \$30 million in energy efficiency upgrades of County facilities since 1994. LA County developed a local government-utility partnership program to cover some of the costs of the program for both the 2004-05 PGC funds program cycle, and for the 2006-2008 program cycle.

Overall effectiveness and accomplishments

The 2004-05 program was a two year, \$3.6 million program. Measures included lighting upgrades, lighting controls, replacement of chillers and retro-commissioning of 12 major facilities. Total kWh saved was 5.7 million with 278,000 therms saved.

The 2006-08 program is a three year program with a budget of \$6.2 million. The majority of the work includes retro-commissioning; however, various energy retrofit measures are being funded as they are identified. The total projected savings is 15 million kWh (12 million net) and 724,000 therms.

How the program/initiative is perceived by Council/Board or staff

The program is well supported by the Board and staff. Staff is especially supportive since EMD provides the financing for the building improvements that also provide other comfort, aesthetic and safety benefits to the building occupants.

Conditions that are necessary for or improve success

EMD has now established much credibility with staff and the Board given its past success. Projects have also become more routine procedure for Board approval and working with County departments.

Contact Information

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Division of the Internal Services Department
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Program/Initiative: *Building Energy Efficient Structures Today (BEST) Program*
City/County: *Marin County*
Program Elements: *Education and Information/Incentives/Technical Assistance*
Market Sectors: *Residential/Nonresidential New and Existing Facilities*

Description

Concept

The BEST (Building Energy Efficient Structures Today) program enhances energy efficiency and conservation in residential, commercial, and community facilities through planning policies and code requirements, education and outreach initiatives, and incentive programs to encourage the design and construction of green and energy efficient buildings that exceed the state Title 24 Building Energy Efficiency Standards.

Objective

The program's main goal is to reduce building energy use in the County of Marin and increase energy efficient construction beyond the Title 24 Standards.

How it works

The BEST program consists of the Energy Efficient Building Incentive Program; and Training and Education initiatives. These are described below. 1) *Energy Efficient Building Incentive Program:* Residential and Commercial buildings can voluntarily comply with this program by exceeding Title 24 requirements by 20 percent, meeting the criteria in the prescriptive checklist designed for the specific project category, or installing an on-site renewable energy system that produces a minimum of 75 percent of the annual energy use for the building and site amenities. In exchange, the County Building Division will provide development incentives including expedited permit processing and fee rebates. 2) *BEST Training and Education:* The program makes energy efficiency and green building consultation available to Marin residents and businesses at no cost. Periodic public workshops on green building are presented. There is a green building exhibit that is located in the Marin County Civic Center and travels to various events. The BEST program includes a Green Building and Green Living Library located at Marin County Civic Center.

History/Status

The BEST program was developed by the Community Development Agency, and adopted in October 2001 by the Marin County Board of Supervisors. The program was developed with funding from Public Goods Charge funding and sponsored by Pacific Gas and Electric Company's Local Government Initiatives Program. The program is currently funded by the Community Development Agency.

Evaluation

Approximately 25% of building permits requiring a Title 24 analysis meet the BEST Incentive Program requirements and receive expedited building permit processing. Hundreds of residents and building industry professionals receive technical assistance and training each year.

Contact Information

Alec Hoffmann

Green Building Program Coordinator

Marin County Community Development Agency

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Program/Initiative: *Single Family Dwelling Energy Efficiency Ordinance*
City/County: *Marin County*
Program Elements: *Regulatory-Ordinance*
Market Sectors: *Residential New Construction*

Description

Concept

Homes exceeding 3,500 square feet use about 40 percent more energy than those between 2,000 and 2,500 square feet, according to the Energy Information Administration. The size of a house can have a greater impact on the amount of energy used than energy efficiency improvements. For example, Environmental Building News (8-1-01) reported that a 3,000 square foot house with good energy features can use significantly more energy than a 1,500 square foot house with poor energy features. The number of large residential projects (3,500 to 18,000 square feet) being proposed for new construction in Marin County is increasing dramatically.

Objective

The goal of the Ordinance is to reduce the annual and peak energy consumption of large homes in Marin County.

How it works

The Ordinance applies to single family homes in the County's **unincorporated** areas and includes:

- 1. New single-family homes larger than 3,500 square feet** of total conditioned floor area (excluding a second residential unit up to 750 square feet). **AND**
- 2. Additions** to single family homes where:
 - The Addition is 500 square feet or larger, **and:**
 - The Existing Building plus the Addition is larger than 3,500 square feet (excluding a second residential unit up to 750 square feet).

In effect, projects larger than 3,500 square feet may not exceed the T-24 energy budget of a 3,500 square feet home. A calculation worksheet must be submitted with the T-24 energy analysis indicating compliance with the ordinance. Proposed projects may receive credit for incorporating on-site renewable energy systems into the design to comply with the reduced annual energy budget.

History/Status

The Marin County Single Family Dwelling Energy Efficiency Ordinance was originally adopted by the Board of Supervisors on October 22, 2002. The revised Ordinance was adopted on September 27, 2005 to comply with updates to Title 24 the California Building Energy Efficiency Standards.

Contact Information

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Program/Initiative: *Sustainable Development Initiative/Green Resource Center*
City/County: *City of Oakland*
Program Elements: *Education and Information/ Regulatory-Ordinance-Policies*
Market Sectors: *Residential/ Nonresidential/Local Government New Construction;*
Residential/Nonresidential Existing Facilities

[Note: Program information is from 2002]

Description

Concept

Implement sustainable development strategies that ensure both the long-term economic health and the environmental quality within the community.

Objective

In late 1998, the Oakland City Council adopted a Sustainable Community Development Initiative. This called for a series of action steps for the community, ensuring that sustainable practices are integral to: Economic development; Employment training and continuing education; In-fill housing, mixed use development, and sustainable ("green") building; City operations and services as a model of sustainable practices; Community participation in the on-going process of Oakland's development

How it works

The Sustainable Development Initiative includes a number of policy recommendations and action steps. The Sustainable Development Coordinator is responsible for implementing the initiative. Those policies and actions that directly impact energy use include the following: 1) Developing green building guidelines for City projects, with references to technical assistance mechanisms and web site, being adapted from Hennepin County. The guidelines also apply to private development projects that invest City funds, although the target level may vary. 2) Requiring all new/remodeled City building projects to capture eligible Pacific Gas and Electric Company rebates and be 10 percent better than new Title 24 energy code. 3) Developing boilerplate RFP and contract language for use by facility project managers that will be used to beta-test green building guidelines in new/renovated City facilities.

History/Status

City Council established the Sustainable Community Development Working Group in 1997 to develop policy recommendations and action steps to guide sustainable community development efforts in Oakland. In late 1998, the Oakland City Council adopted the Sustainable Community Development Initiative.

Energy related accomplishments to date include:

- A Green Buildings Resource Center opened February 2000 adjacent to the Zoning and Building Permit Counters. It offers displays, videos, web-links, and printed matter on site design, building products, energy/water efficiency, solid waste management and de-construction.
- Developing strategy to attract "green" developers to work in Oakland, particularly for "10K" goal (10,000 new residents in 6,500 housing units).

- Application of green building goals and guidelines in significant public projects (e.g., new school, large new police substation); will encourage green building designs for City's \$40 million in funding toward \$120 million of affordable housing development.
- Developing green building curriculum for Laney Community College Building Trades vocational education program training 250 students per year.
- Energy performance contracting on new design/build facilities; 50 kW cogeneration system at Oakland Museum; and lighting retrofit specifications.

City Council mandated staff to carry out the Sustainable Community Development Initiative.

Contact Information

Web Site: www.oaklandnet.com/government/ceda/

Phone: (510) 238-6808

Program/Initiative: *Incentives for Installing Photovoltaics*
City/County: *City of Oakland*
Program Elements: *Incentives*
Market Sectors: *Residential Existing Facilities*

[Note: Program information is from 2002]

Description

Concept

Provide incentives to encourage the installation of photovoltaic systems by eliminating the permit fee and streamline the permitting process for those seeking to install photovoltaic systems at their homes.

Objective

Encourage the use of photovoltaic systems by making it easier and cheaper to install.

How it works

City of Oakland eliminates permitting fees and offers a streamlined permitting process for those seeking to install solar panel systems at their homes.

Program/Initiative: *City Facilities Retrofits for Energy Efficiency; Design Review of New Construction; New Building Performance Contract*
City/County: *City of Oakland*
Program Elements: *Existing Facility Upgrades using an Energy Manager, New Building Performance Contract for Administration Building*
Market Sectors: *Local Government New and Existing Facilities*

[Note: Program information is from 2002]

Description

Concept

Dedicate staff resources to facilitate energy retrofits in municipally owned and operated facilities; include energy efficient design in municipal new construction and rehabilitation projects.

Objective

Reduce the amount of energy used in existing and new municipal facilities.

How it works

The City of Oakland's Energy Engineer is responsible for implementing comprehensive energy efficiency retrofits in municipally-owned and operated facilities and facilitating the incorporation of energy conservation measures in new construction and renovation projects. Representative projects include: 1) The City has incorporated energy efficient lighting in all City facilities and energy efficient HVAC systems in some City facilities. Many projects are implemented using California Energy Commission energy efficiency loans. 2) Energy Engineer developed energy efficiency criteria for municipal new construction and renovation projects. He works directly with City staff and design teams to incorporate energy efficiency in the designs to exceed the new California Energy Code Title 24 standards by 10 percent. 3) Applied Performance Contracting to the design/build contract to construct the new Oakland Administration Buildings that consists of two separate buildings totaling 540,000 square feet. The Energy Performance Contract includes an incentive payment to the Contractor if the energy cost during the second full year of building operation is under the adjusted energy cost target by more than \$20,000 and a penalty to the Contractor if the energy cost during the second full year of building operation exceeds the adjusted energy cost target by more than \$20,000.

History/Status

The City of Oakland has been identifying and implementing municipal energy efficiency projects since the mid 1980s. The City has insured that approximately 2 million square feet of municipal facilities have energy efficient lighting and/or HVAC systems either through energy efficiency retrofits or by incorporating energy efficiency within new construction.

How the program/initiative is perceived by Council/Board or staff

City Council is very supportive of efforts to reduce the City's energy use.

Contact Information

Scott Wentworth, Energy Engineer for Oakland Public Works Department
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Program/Initiative: *Energy Efficiency Tool Lending Bank and Energy Library*
City/County: *Redwood Coast Energy Authority, Humboldt County*
Program Elements: *Technical Assistance*
Market Sectors: *Residential and Nonresidential Existing Facilities*

Description

Concept

Provide energy-related tools, equipment and information to increase local awareness of residents and businesses of their energy consumption.

Objective

With increased awareness of their consumption, local residents and businesses will reduce their energy use.

How it works

The Energy Tool Bank is a Public Goods Charge funded program that loans tools free of charge to people working on short-term energy efficiency projects. The Energy Library provides books, magazines, videos and other reference materials. These resources are available to the public on a loan basis for usually 10 business days (longer periods available upon request).

Available Energy Tools:

- WattsUp? Plug Usage Monitor
- WattsUp? Pro Plug Usage Monitor
- Power Cost Control Plug Usage Monitor
- Kill-A-Watt Plug Usage Monitor
- Energy Monitor Logger
- Solar Site Selector
- Solar Pathfinder
- Minneapolis Duct Blaster
- Light Meter
- Non-Contact Infrared Temperature Gun
- HOBO Datalogger - Motor On/Off
- HOBO Datalogger - Light On/Off
- HOBO Datalogger - Pro RH/Temperature/Light/External Channels
- HOBO Datalogger - Pro RH/Temp
- HOBO Datalogger - Temp/External Channels
- HOBO Datalogger - State Open/Closed
- HOBO Datalogger - 4 External Channels
- HOBO Datalogger - Outdoor/Industrial 4-Channel External Logger
- HOBO Shuttle Data Transporter
- HOBO Narrow Range Temperature Sensor for H8 Dataloggers
- HOBO Wide Range Temperature Sensor for H8 Dataloggers
- HOBO Voltage Input Cable for H8 Dataloggers
- HOBO 4-20mA Input Cable for H8 Dataloggers
- HOBO 0-50 Amp Split-Core AC Current Sensor
- HOBO 0-100 Amp Split-Core AC Current Sensor
- HOBO 0-600 Amp Split-Core AC Current Sensor

BoxCar Pro Starter Kit for Windows
BoxCar 3.7 Starter Kit for Windows
Kodak Easy Share Digital Camera

History/Status

The tool bank and energy library started in 2004. The most popular items to borrow are the Kill a Watt Plug Use Monitor and the Solar Pathfinder.

Contact Information

Energy Tool Bank

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Email: info@redwoodenergy.org.

Program/Initiative: *Green Schools Program*
City/County: *City of San Diego*
Program Elements: *Education-Information/ Incentives/ Technical Assistance*
Market Sectors: *Nonresidential Existing (School) Facilities*

Description

Concept

Climate change is a global issue influenced by local actions. The Green Schools Program emphasizes the climate protection issue by linking the collective impact of personal actions related to energy and water conservation, public health and waste reduction.

Objective

The City of San Diego's Green Schools Program was created to build a better understanding of personal action and responsibility as a cornerstone of environmental protection.

How it works

Students are given practical examples they can take into action today to make a positive difference for San Diego's future. This program offers interactive lectures and an energy audit training that take place on the campus of high schools registered in the Green Schools Program. Students have the opportunity to retrofit community centers with more energy efficient materials.

An interactive lesson is given by experienced program staff that links local energy use, global trends and resulting environmental and societal impacts in the classroom. Each of these topics is covered in the presentation, which includes: greenhouse effect, water and energy conservation, renewable and nonrenewable energy sources, home energy audits, environmental health, waste reduction and transportation issues.

An energy engineer leads students on an energy audit of their school. Students may inspect their classrooms, gymnasium, boiler room, library or other applicable rooms on campus. The students operate and handle engineering diagnostic tools. With the engineer's help, students brainstorm ideas that could improve efficiency in that particular area. A final report compiled by the students may be submitted to the administrative staff of the high school.

Students can participate in an optional community service project at a selected not-for-profit facility. An energy audit of the facility is completed and students provide recommendations for a cost-effective energy efficiency retrofit. A trained professional technician then makes the identified improvements.

A four-hour forum for high school students is held each spring. It is an opportunity for students from a broad range of high schools to discuss what they understand about the future of our region with respect to resource use, waste reduction and other key challenges they have identified. Prominent speakers and elected officials participate, and the goal is to empower the students to speak out and make a difference.

History/Status

Since 2001, more than 3,500 students have benefited from participating in the program, and more than 41,000 kWh of energy-saving community service projects have been completed.

Contact Information

Environmental Services Department

Kathie Pishny, Program Manager

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Program/Initiative: *City Facilities Retrofits for Energy Efficiency and Renewables; Design Standards for New City Buildings*
City/County: *City of San Diego*
Program Elements: *Energy Retrofits for Energy Efficiency and Renewables using an Energy Manager*
Market Sectors: *Local Government New and Existing Facilities*

Description

Concept

Create a new division within the Environmental Services Department to facilitate renewable generation projects and energy retrofits in municipally owned and operated facilities; include energy efficient and green design in municipal new construction and rehabilitation projects; and, encourage the development and use of renewable energy and other distributed generation as a means to achieve greater energy independence.

Objective

The Energy Conservation & Management Division was formed in response to the immediate energy crisis and to pursue a long-term vision for San Diego to achieve energy independence.

How it works

Completed Ridgehaven “Green Building” Demonstration Project in 1996. The building is occupied by the City’s Environmental Services Department. Currently implementing a number of energy efficiency projects in City facilities including Libraries, Fire Stations, Police Substations and Park & Recreation Facilities. Installing building controls, lighting upgrades, HVAC improvements, skylights, windows and self-generation systems to meet council adopted 50 MW renewable generation goals. Staff also reviews Capital Improvement Projects to consider additional energy efficiency measures that can be incorporated. In 2003, the City has adopted the US Green Building Council’s LEED™ silver as the design standard for all municipal new construction. Staff is currently very active with developing and implementing municipal renewable energy projects including photovoltaic, hydroelectric power, and cogeneration. Staff is also implementing beneficial use of landfill gas from closed sites to fuel operations.

History/Status

The City’s Environmental Services Department has been implementing energy efficiency projects since the early 1990s. On February 21, 2001, the City established a centralized Energy Conservation and Management Program. The City is funded through the California Public Utilities Commission to deliver energy efficiency partnership objectives that implement building improvements, educate consumers to potential energy savings and adopt codes and standards for improved efficiency in the City.

Overall effectiveness and accomplishments:

Have completed Ridgehaven Green Building Demo project; installed LED traffic signals; and, completed energy retrofits that provide 24 million kilowatt hours of avoided use annually. Current renewable electricity production includes 16.08 megawatts (Point Loma, Pump Stations, Cogeneration) from methane recovery and 1.3 MW from photovoltaic systems including a 1 MW system at a water treatment facility; 1.6 MW generated from Point Loma hydroelectric power plant; 16 water department generators strategically placed to support the local grid

system, 8 of which typically run for 3 hours during peak demand (5-8 PM) assuring energy reliability during these critical periods.

How the program/initiative is perceived by Council/Board or staff:

The objective of achieving energy efficiency and independence is a priority of the Mayor and is well supported by Council and staff.

Contact Information

Tom Blair, Deputy Director

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Program/Initiative: *Incentives for Green Building and for Photovoltaics*
City/County: *San Diego County*
Program Elements: *Incentives*
Market Sectors: *Residential and Nonresidential New Construction and Existing Facilities*

Description

Concept

The County of San Diego has a Green Building Incentive Program designed to promote the use of resource efficient construction materials, water conservation and energy efficiency in new and remodeled residential and commercial buildings. It also offers incentives for residential photovoltaic systems.

Objective

The Green Building Program is concerned with protecting the environment and encouraging homeowners and builders to build using environmentally sound practices. These programs are in line with the County's Strategic Plan which has established goals of safeguarding the environment and quality of life and encouraging responsible development.

How it works

The Green Building Incentive Program offers incentives of reduced plan check turnaround time and a 7.5% reduction in plan check and building permit fees for projects meeting program requirements. To qualify for the incentives, the project must comply with one of the resource conservation measures listed below:

- Straw Bale Construction - new buildings using baled straw from harvested grain for the construction of the exterior walls.
- Recycled Content - 20% or more of primary building materials being used contain, in aggregate, a minimum weighted average of 20% post-consumer recycled content materials (reused materials count as 100%); or at least one primary building material (such as roofing) is 50% or more post-consumer recycled content.
- Gray water Systems - installation of a gray water system in new or renovated buildings to conserve water.
- Energy Conservation -residential projects that exceed the minimum Title 24 standards by 15% and commercial projects that exceed the standards by 25%.

The County also offers the incentive of no fees for the building permit and plan check of residential photovoltaic systems. Incentives to help pay for the systems are offered through the California Center for Sustainable Energy and through the California Energy Commission.

History/Status

N/A

Contact Information

County of San Diego
Building Division
Phone: (858) 565-5920

Program/Initiative: *Small Business Direct Install (SBDI) Program*
City/County: *City and County of San Francisco*
Program Elements: *Education-Information/Incentives/Technical Assistance*
Market Sectors: *Nonresidential Existing Facilities*

Description

Select lighting and refrigeration measures are installed in small businesses by contractors who have been trained and have signed on to do installations according to specs of the Small Business Direct Install program auditor.

Concept

Small business owners do not have to deal with the time and hassle of choosing energy efficiency products, looking for a contractor, and filling out and sending in rebate applications. Some projects are free to the businesses, but most have a co-pay of 20-40% of the project cost.

Objective

To bring energy efficiency benefits to this hard-to-reach sector by focusing on their major needs and making it easy for them to participate.

How it works

Program auditors are assigned to neighborhoods in the City. They call on customers and do audits on the spot. The auditor provides a cost and savings proposal to the customer and gets a signed access agreement, then assigns the project to one of the program installers. When the installation is complete, the auditor inspects the site and the contractor invoices the customer, showing the savings incentive on the invoice. The Program incentive payment is made directly to the contractor.

History/Status

The program is an outgrowth of an earlier Small Business Lighting Retrofit Program.

Contact Information

Alena Gilchrist
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Email: alena.gilchrist@sfgov.org

Program/Initiative: *Multifamily and Commercial PLUS Program*
City/County: *City and County of San Francisco*
Program Elements: *Education-Information/Incentives/Technical Assistance*
Market Sectors: *Multifamily and Nonresidential Existing Facilities*

Description

The PLUS Program offers comprehensive measures (lighting, refrigeration, HVAC, boilers, motors, food service equipment, and computer network management systems) to multifamily and commercial property owners and to businesses.

Concept

Use vendors, who are trained and proven to offer quality work, to help market the program.

Objective

To get more local contractors involved in energy efficiency programs and to offer more comprehensive retrofits to the customers.

How it works

Program recruits and trains local contractors on program rules, applications, etc. Interested contractors sign a participating contractor agreement and then are eligible to receive incentives for their customers. After they have successfully completed three installations (pre- and post-inspected) they are eligible to get referrals from PLUS program's staff of auditors and marketing personnel. Incentives are paid directly to the Contractors.

History/Status

Had very late start, with launch in September 2007. Moving aggressively now.

Contact Information

Kathleen Hannon
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Program/Initiative: *Residential Energy Conservation Ordinance*
City/County: *City and County of San Francisco*
Program Elements: *Regulatory-Ordinance*
Market Sectors: *Residential Existing Facilities*

[Note: Program information is from 2002]

Description

Concept

The City of San Francisco Residential Energy Conservation Ordinance (RECO) requires compliance with a checklist of energy and water efficiency requirements when a pre-1978 home or apartment building is sold, converted to condominiums, converted from a master meter to individual meters, or undergoes a major improvement. RECO is a one-time compliance ordinance, and will naturally sunset when all affected buildings have complied.

Objective

RECO was originally adopted to improve the energy efficiency for existing houses and apartments in the City of San Francisco, insuring energy upgrades in the City's large stock of rental housing, where building owners often do not pay the energy bills. Water conservation measures have been added to address water conservation as well.

How it works

The ordinance is fairly self-enforcing, according to City staff. It is the seller's responsibility to comply before sale of the building; but this can be transferred to the buyer via a written agreement (with an option for an Escrow account). In that case, the buyer has six months to comply. Most commonly, a realtor involved in the building sale flags compliance requirements prior to the City becoming aware of the transaction, which reduces the staff time necessary. If the seller's agent hasn't flagged it as part of standard real estate disclosure, then the buyer's agent usually learns about it during the title search. Compliance requires an initial inspection, usually by a city-certified private inspector. (Inspectors are usually insulation contractors who perform the service for free in exchange for a chance to bid on the job.) If the inspector performs the compliance work, a different inspector must perform the final inspection. Compliance forms are filed with the City and the County Recorder along with a fee. City staff enforcement is relatively light, but not non-existent. Issues include enforcement hearings, processing exemptions, tracking (or at least logging) compliance for individual properties. Attic insulation is the highest cost item; others include water heater blanket, hot water pipe insulation, low flow showerhead, weather-stripping doors to exterior, caulk and seal building exterior, and insulating accessible ducts. Multifamily requirements include boiler tune-up and time clock control for the burner. Two water conservation measures were added in 1991: faucet aerators and replacement or retrofit toilets to "low flush". The maximum expenditure required to meet RECO upgrades is \$1,300 or 1 percent of the assessed property value, whichever is less.

History/Status

RECO is a 1982 ordinance, most recently updated in 1995. The program is currently in effect with enforcement by the Housing Inspection Division of the Department of Building Inspection.

Contact Information

Patrick McKenzie, Senior Inspector
Phone: (415) 558-6220

Program/Initiative: *Green Building Program Policies and Guidelines*
City/County: *City of San Jose*
Program Elements: *Education-Information/ Recognition-Labeling/ Incentives*
Market Sectors: *Residential and Nonresidential New Construction*

Description

Concept

The City of San José has adopted and incorporated green building goals, principles and practices into the planning, design, construction, management, renovation, operations, and demolition of all City facilities that are constructed, owned, managed or financed by the City. The City also provides leadership and guidance to encourage the application of green building practices in private sector planning, design, construction, management, renovation, operations, and demolition of buildings by promoting the voluntary application of the San José Green Building Policy goals.

Objective

The purpose of a Citywide policy on green building is to demonstrate the City's commitment to environmental, economic, and social stewardship, to yield cost savings to city taxpayers through reduced operating costs, to provide healthy work environments for staff and visitors, and to contribute to the City's goals of protecting, conserving, and enhancing the region's environmental resources. Additionally, the City hopes to provide leadership by setting a community standard of sustainable/green building.

How it works

The green building policy goals will center on five main categories:

- Sustainable Sites
- Energy and Atmosphere
- Water Efficiency
- Materials and Resources
- Indoor Environmental Quality

City Facilities

All new construction and major retrofit projects for all City facilities and buildings over 10,000 gross square feet of occupied space are required to meet LEED™ Silver level certification at a minimum, with a goal of reaching LEED™ Gold or Platinum certification effective with Budget Allocations. Staff reviews current Capital Budgets to determine how Green Building recommendations could be incorporated into budgeted projects and returns to Council with a report on the potential costs and impacts. The report includes information related to Green Building Guideline compliance within each Project Award memorandum.

Even though projects may become exempt from the City's required green building program, project managers and design teams are encouraged to apply the relevant portions of the LEED™ checklist and to develop goals that increase the environmental, social, and economic benefits of the project.

Private Sector Facilities

Staff works with the community to encourage achievement of LEED™ Certified rating and to identify and provide incentives and educational programs that help achieve those efforts.

History/Status

Environmental Services Division staff work with the members of the Green Building Task force and Workgroup and other City Departments to implement the Green Building Policies and Guidelines, evaluate the program, and report back to Council on a yearly basis.

Contact Information

Mary Tucker
Supervising Environmental Services Specialist
Office of Sustainability
City of San Jose-Environmental Services Department
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San Jose, CA 95113-1905
Phone: (408) 975-2581
Email: Mary.Tucker@sanjoseca.gov

Program/Initiative: *Permit Fee Reduction if Exceed Title 24 Building Standards*
City/County: *San Luis Obispo County*
Program Elements: *Recognition-Labeling/ Incentives*
Market Sectors: *Residential New Construction*

Description

Concept

Give financial incentives to builders of energy efficient homes.

Objective

Increase the number of homes built beyond state energy requirements.

How it works

If a new dwelling design exceeds California Energy Code requirements by at least 15%, the County will provide a credit of up to 25% of the building permit fee, not to exceed a total credit of \$250.00. To qualify, Title 24 compliance must be verified by one of the approved computer programs and the total heat loss and gain shown on the C-2R form must be at least 15% less than the allowable (also shown on that form).

Pacific Gas and Electric Company (PG&E) has a similar program for primary residences only (no vacation homes). The PG&E program reimburses applicants \$400.00 for exceeding Title 24 by 15% and \$600 for exceeding it by 20%.

History/Status

The project has received over 25 applications each year for the last couple of years.

Contact Information

SLO Program

Planning and Building Department

Phone: (805) 781-5600

PG&E Program

Phone: (800) 342-7737

Program/Initiative: *Innovative Building Design Review Committee*
City/County: *Santa Barbara County*
Program Elements: *Education- Information/ Technical Assistance*
Market Sectors: *Residential and Nonresidential New Construction*

Description

Concept

The Innovative Building Review Program (IBRP) is a *free* program that advises developers on how to make their developments more energy efficient. The advice is in the form of suggestions, which will benefit the construction and operation of development in a number of ways, including energy efficiency and marketability.

Objective

To increase the efficiency of new development in Santa Barbara County beyond State requirements by providing assistance and incentives.

How it works

The IBRP is made up of local professionals including contractors, architects, engineers, energy consultants, and government officials. These professionals have a tremendous amount of knowledge and interest in innovative, energy-efficient developments. Developers are encouraged to bring their projects to the program early in the planning process.

The IBRP provides a number of incentives to participants that reach one of three target levels. One of the most well-liked incentives is an expedited review of plan check through the Building & Safety Division. Another is a 50% reduction on the energy plan-check fee. Other incentives are available depending on the target level a development reaches.

To reach a target, a development must exceed Title 24 (California Building Energy Efficiency Standards) by a certain percentage and include additional energy-efficient features outside the purview of Title 24 (e.g., recycled building materials, drought-tolerant or native plants, alternative energy systems). The program includes an Energy-Efficient Menu that lists a number of energy-efficient features that projects can choose from. Each feature is assigned a point(s). The point total and the percentage improvement upon Title 24 are used to determine the target achieved. The Energy-Efficient Menu also lists the three target levels and the associated incentives.

History/Status

This program started in 1995. It receives 5-7% of the permits issued by the Building Department. At first, projects joined the program for the expedited permit review, but now the focus is more on wanting to build a green and efficient home. In the early days, most developers reached the first target (20% beyond Title 24), for which they received expedited review. Now the majority of the submittals meet the second target (30% beyond Title 24), with the third target (40% beyond Title 24) just behind.

Contact Information

Kathy McNeal Pfeifer
Phone: (805) 568-2507
Email: kathypm@co.santa-barbara.ca.us

Program/Initiative: *Green Building Ordinance/ Green Building Design and Construction Guidelines*

City/County: *City of Santa Monica*

Program Elements: *Education and Information/ Regulatory-Ordinance*

Market Sectors: *All New Construction*

Description

Concept

Santa Monica's green building requirements were designed to increase sustainability without putting excessive burdens on builders or developers. Many of the measures have some associated initial cost, though others can actually reduce first costs and operating costs, and all of them increase the overall value of the building.

Objective

Santa Monica's Green Building Program was developed both to raise the bar of baseline performance and to create incentives to pursue excellence for building practices in the City.

How it works

The basis for the green building requirements lies with the City's Green Building Ordinance. This ordinance establishes requirements for energy efficiency, green construction materials, construction and demolition waste diversion, and landscape water conservation on new construction projects and substantial remodels. It also establishes a priority plan check incentive for certain buildings that pursue LEED certification. While the green building requirements are directly established in this ordinance, other City ordinances and policies also support green building strategies. For example, the Zoning Ordinance contains requirements for provision of bicycle and electric vehicle parking spaces and the City requires a high level of urban runoff mitigation performance. The City has also imposed a green building requirement on itself, mandating that all new City construction projects achieve at least a LEED™ Silver rating.

The City offers a grant program available for buildings pursuing LEED™ certification. The program gives grant funding intended to offset the soft costs of certification and the level of the award is dependent upon the level of LEED™ certification achieved by the building.

Santa Monica has also developed Green Building Design and Construction Guidelines that include best practices that are intended to reduce life-cycle environmental impacts associated with the construction and operation of both commercial and residential developments and major remodel projects in Santa Monica. They provide specific "green" design and construction strategies in the following topic areas: Building Site and Form, Landscaping, Transportation, Building Envelope and Space Planning, Building Materials, Water Systems, Electrical Systems, HVAC Systems, Control Systems, Construction Management, and Commissioning.

The program provides a web-based Design Advisor tool to help determine which strategies a project developer should consider depending on project type. The City stresses that all of the green building practices are most successful (and most easily and economically achievable) when integrated into the initial design phases of the project.

History/Status

The Green Building program has been successful in its mission of outreach and education. The program was one of the first in the country, and to date, Santa Monica has one of the highest numbers of LEEDTM-certified buildings per capita of any city in the country. Beyond using LEEDTM as a metric, the City's mandatory requirements through the Green Building ordinance have resulted in significant energy savings and pollution reduction city-wide.

The grant program has not been a significant driver encouraging green building thus far, although there seems to be much interest from the residential market now that LEEDTM for Homes has been included in the grant program. The priority plan check continues to be an incentive that highly coveted by builders and developers.

The field of green building has undergone a sea change over the last four years, since the City's residential Green Building Guidelines were published. Several cities in Southern California now have mandatory green building requirements for new construction. Now that green building strategies have begun to move into mainstream awareness, the challenge for the City's program will be to transition from an early adopter stage to widespread implementation. While the City has no immediate plans to adopt LEEDTM or any other off-the-shelf green building rating system, Santa Monica anticipates future code improvements, paired with incentives that would achieve similar results.

Contact Information

Green Building Program Advisor
1212 5th Street, First Floor
Santa Monica, CA 90401
Phone: (310) 458-8549

Program/Initiative: *Water Fixtures Retrofit Upon Sale Ordinance*
City/County: *Santa Monica, CA*
Program Elements: *Regulatory - Ordinance*
Market Sectors: *Residential/ Non-residential Existing Buildings*

Description

Concept

Any building that changes ownership after May 1, 1993 is required to be certified as being retrofitted with water efficient plumbing fixtures if such fixtures are not already in place. Compliance with this ordinance is a condition of escrow.

Objective

To reduce unnecessary water consumption in the City of Santa Monica.

How it works

When a building is changing ownership, the seller completes a Retrofit Upon Sale Compliance Application and pays a \$50 application fee. The seller calls a City-certified plumber to inspect the property for water efficient fixtures including toilets, showerheads and faucets. They may also inspect smoke detectors and water heater straps. Upon passing the inspection, an original certificate is mailed to the escrow company. If the property fails the inspection, the owner is responsible for repairs, parts, and costs necessary for compliance. A re-inspection fee is not required if City-certified plumbers are used.

Compliant fixtures include:

- Ultra-low flush toilets that use a maximum of 1.6 gallons per flush
- Urinals that use a maximum of 1 gallon per flush
- Showerheads and faucets that emit a maximum of 2.5 gallons per minute
- Residential reverse osmosis water filtration systems that are equipped with shut-off valves

History/Status

Exemptions include properties transferred between spouses or between parents and children, and properties in foreclosure. Exemptions will be granted to buildings of local, state, or federally designated historical significance if fixtures that match their historical architectural style cannot be found.

Contact Information

Kema, Inc.
Phone: (866) 728-3229

Program/Initiative: *City Facilities Retrofits for Energy Efficiency*
City/County: *City of Santa Monica*
Program Elements: *Existing Facility Upgrades using In-House Energy Staff and Lease-Purchase Financing from Utility*
Market Sectors: *Local Government Existing Facilities*

Description

Concept

The City will pursue opportunities to reduce its energy costs through accessing available programs for efficiency, renewable energy and utility bill management.

Objective

To reduce the energy budget of Santa Monica's municipal facilities.

How it works

Santa Monica has taken advantage of programs offered by Southern California Edison and the Gas Company, as well as other funding sources. The City also negotiated a direct access agreement for 100% renewable resources, and has purchased utility bill tracking software that has identified over-billing on its accounts.

History/Status

The municipal facility energy efficiency/conservation program has been comprised of the following efforts:

- Retrofitting all lighting systems with T-8s and HVAC upgrades through SCE's Invest program (1996).
- Tracking Edison accounts (over 500 accounts) on Utility Manager software resulted in refunds totaling over \$300,000 to the City for over-billing for streetlights.
- Direct access purchase of 100% renewable energy from Commerce Energy resulted in cost savings to the City during 2001-2002 from having locked in a fixed rate contract that protected City from deregulation and the resulting CRS surcharge.
- Appointment of Energy Advisors from various City facilities who are supposed to check that lights, computers, and peripherals are shut off at the end of the day.
- Installation of Solar PV and a thermal energy storage system during roofing and/or retrofit projects.
- Installation of solar PV or solar thermal on all new construction projects.

Contact Information

Green Building Program Advisor
1212 5th Street, First Floor
Santa Monica, CA 90401
Phone: (310) 458-8549

Regional CA Local Government Programs/Initiatives- Descriptions

Program/Initiative: *Community Energy Partnership (formerly Regional Energy Efficiency Initiative)*

City/County: *Various: Brea, Cathedral City, Corona, Hermosa Beach, Irvine, Moreno Valley, San Bernardino, Santa Clarita, Santa Monica, West Hollywood*

Program Elements: *Facility Audits, Retrofits, Program Development*

Market Sectors: *Municipal Facilities*

Description

Concept

This program is operated by the Energy Coalition. The Energy Coalition's **Community Energy Partnership (CEP)** helps cities and their utilities work together to benefit consumers.

Objective

The CEP mission is to build positive relationships among cities, energy consumers, and their serving utilities, and to educate communities about sustainable and efficient energy practices.

How it works

The Energy Coalition conducts policy meetings with the mayors and employees of partner cities to discuss the big picture for efficiency in their cities and their potential leadership role in advocating efficiency at the state regulatory and legislative arenas.

History/Status

An engineering assessment of all of **West Hollywood's** municipal facilities was completed in May 2003. After presentations were made to city officials, the assessment's clearly revealed opportunities for efficiency were written into the City's Capital Improvement Plan with supporting language inserted into the City's Strategic Plan. The City now has a working guide as to how to invest \$50,000 - \$75,000 to create a savings stream through efficiency to the tune of well over a quarter-million dollars.

A memorandum of understanding (MOU) was crafted for the **Brea Historical Society** to support its efficiency retrofit of the old police building that will be the Society's museum and which will also serve as a community meeting place and demonstration of the City's commitment to efficiency. A check was presented to support efficiency in this high-profile community project at the Brea City Council with the Mayor and Director of the City's Planning Commission.

In **Irvine**, an energy assessment was completed of Irvine's Operations and Support Facility, better known as Irvine Corporate Yards or "the yards." The assessment helped determine the next steps there with efficiency and how the City itself can invest to cut costly peak demands and energy bills. Irvine's objective is to become known in the State as a model builder for increasing the efficiency at city yards-- energy intensive facilities that have been often overlooked.

Energy management innovation continues to flow from the City of **Santa Monica**, a celebrated national model green city. Working with Coalition staff, Energy Advisors have been appointed in each partner city department. Akin to earthquake safety wardens in large buildings, the Advisors are the eyes and ears of energy waste, and the advocates of fellow staff participation in aggressively saving energy at work. To stimulate savings and overcome departmental cynicism, an incentive plan has been drafted for facilities engineering and operations staff.

Contact Information

Angela Davison

Community Energy Partnership Program Manager

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Email: adavison@energycoalition.org

Program/Initiative: *Exceeding Title 24 Building Energy Efficiency Standards*
City/County: *Various: La Quinta, Los Altos Hills, Marin County, Mill Valley, Palm Desert, Rohnert Park, Santa Monica*
Program Elements: *Regulation-Ordinances*
Market Sectors: *All*

Description

Concept

Adopt local requirements that exceed State-mandated energy efficiency standards for new and/or existing buildings.

Objective

To reduce energy use locally.

How it works

Public Resources Code Section 25402.1(h)2 and Section 10-106 of the Building Energy Efficiency Standards (Standards) establish a process which allows local adoption of energy standards that are more stringent than the statewide Standards. This process allows local governments to adopt and enforce energy standards before the statewide Standards effective date, to require additional energy conservation measures, and/or set more stringent energy budgets. Local governments are required to apply to the California Energy Commission (CEC) for approval, documenting the supporting analysis for how the local government has determined that their proposed Standards will save more energy than the current statewide Standards and the basis of the local government's determination that the local standards are cost-effective. Once the CEC staff has verified that the local standards will require buildings to use no more energy than the current statewide Standards and that the documentation requirements in Section 10-106 are met, the application is brought before the full CEC for approval.

History/Status

The cities above and Marin County have all received approval from the CEC to exceed Title 24 in local codes. In some cases the ordinance covers only certain buildings (e.g., Marin County's ordinances applies to new residences larger than 3,500 square feet), but for the others the ordinance is for all buildings.

Contact Information

Energy Efficiency Hotline

E-mail: title24@energy.state.ca.us

Phone: 916-654-5106 or

Phone: 1-800-772-3300 (toll free in Calif.)

Program/Initiative: *Green Business Program*

City/County: *Various: Alameda, Contra Costa, Marin, Napa, San Diego, San Francisco, Santa Clara, and Sonoma Counties; City of Santa Monica, and Monterey Bay Area*

Program Elements: *Recognition-Labeling*

Market Sectors: *Small Commercial Existing Facilities*

Description

Concept

The Green Business Program is a voluntary partnership among business leaders, government agencies and nonprofit organizations that recognized and promotes businesses that voluntarily meet a checklist of green building standards, including pollution prevention, waste reduction and energy and water conservation. It operates in Alameda, Contra Costa, Marin, Napa, San Diego, San Francisco, Santa Clara, and Sonoma Counties, the City of Santa Monica and the Monterey Bay Area.

Objective

Encourage local businesses to adopt and sustain green/energy efficient practices.

How it works

The City/County recognizes and promotes businesses that:

- Demonstrate continuous compliance with applicable environmental regulations
- Conserve energy, water and other materials
- Implement sound environmental practices that prevent pollution and reduce waste generation
- Share environmentally responsible practices with other businesses in the community

The City/County provides the following for meeting the Green Business Standards Checklist:

- Streamlined environmental assistance including identifying and obtaining necessary permits and a checklist of best management practices for their industry
- Money saving opportunities
- Recognition certificate
- Green Business window decal
- Camera-ready artwork
- Ongoing promotions through local advertising and public events

History/Status

Over 600 businesses have been certified by the program.

Contact Information

Dana Armanino

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Email: darmanino@co.marin.ca.us

Web Site: www.maringreenbusiness.org

Burlington, VT- Local Government Program/Initiative Description

Program/Initiative: *Minimum Rental Housing Energy Efficiency Standards Ordinance*

City/County: *Burlington, VT*

Program Elements: *Regulatory - Ordinance*

Market Sectors: *Existing Residential Rental Units*

Description

Concept

The purpose of the ordinance is to promote the wise and efficient use of energy in rental dwellings by mandating cost-effective minimum energy efficiency standards enforced when buildings are sold. Technical assistance and flexible financing packages are available to help property owners meet those requirements.

Objective

To improve the comfort and energy efficiency of rental units in the City of Burlington by increasing insulation levels, reducing air infiltration, and addressing other performance issues. This ordinance only applies to rental units where the renter pays the utility bill.

How it works

At time of sale, and energy inspection is done on the building (the buyer and seller negotiate who pays for the inspection). The inspection may be waived if the building has participated in past utility programs.

The ordinance requires various levels of insulation in attics and exterior walls, HVAC and hot water piping must be sealed and insulated, windows must be double paned or provided with storm windows, doors opening to exteriors or to unheated spaces must be weather stripped, large gaps that allow heat to escape must be sealed, and heating and hot water appliances must be inspected for operational safety within 12 months of title transfer.

The cost cap for these improvements is 3 percent of the sale price or \$1,300 per rental unit, whichever is less. The average cost is expected to be \$650 - \$750. The actual cost will depend upon the existing condition of the building.

History/Status

Burlington, VT has an electric utility, Burlington Electric Department (BED). It provides the technical assistance, and sometimes financing, to help implement the ordinance. The ordinance has been in effect for 11 years.

BED is alerted to the change of ownership by realtors, title companies and owners familiar with the ordinance. It can also find out when a new owner calls to change the name on the electric bill for the common areas of the building. It is easier to enforce the ordinance if BED is notified early in the process. Most of the larger rental property owners are familiar with the ordinance and consider it part of doing business. Implementation of the ordinance can be challenging for to the smaller rental building owners, who may not be familiar with it.

Cost for the work on the units is often held in escrow, and title companies will check with BED before releasing the funds.

The ordinance has been successful. The inspections get done, and often the owners once they have had the inspection, which includes gas and electricity energy use, will spend more per unit than the minimum because their common area utility bills are also reduced. BED and Vermont Gas offer incentives for efficiency improvements.

Contact Information

Burlington Electric Department

Phone: (802) 865-7300