

Bay Area communities working together for a sustainable energy future.

Bay Area Regional Energy Network

2014 Energy Efficiency

Annual Report

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Association of Bay Area Governments

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I. Executive Summary

The San Francisco Bay Area Regional Energy Network (“BayREN”) was authorized and funded under D. 12-11-015, in order to serve a number of principal objectives, including:

To provide consistent, continuous, and uniform access to ratepayer-funded energy programs across geographic areas representing multiple counties and cities

To support local governments and build capacity for deployment of energy programs across jurisdictions, and meet energy action and climate action plan goals; and

To independently design, administer and implement energy programs, with a focus on serving hard-to-reach market sectors.

The BayREN is administered by the Association of Bay Area Governments (ABAG), and implements energy management programs in collaboration with public agencies in the nine-county region of the San Francisco Bay Area¹ through a portfolio that includes services for residential upgrades, codes and standards, and financing programs.

BayREN addresses the compelling need of local governments to receive technical support, resources, incentives, tools, templates, expertise, and access to financing that will enable them to cost effectively implement integrated energy management strategies in the communities they serve. As a peer driven-organization where local governments will learn from one another, the BayREN expands the number of local governments participating in energy efficiency programs.

The BayREN complements and supplements the services of existing Local Government Partnerships (“LGPs”). It does so by serving regional rather than local-facing programs, and offering services that are either not able to be offered by Investor Owned Utilities (IOU), or are delivered in concert with IOU program offerings (i.e. supplemental marketing, technical assistance, home energy assessment incentives, and contractor training through Energy Upgrade California® Home Upgrade). The BayREN aggregates and supports local government projects and increases their scope and depth through innovative design, improved financing, more comprehensive project development services, and open source best practices.

The BayREN also fills the resource and opportunity gaps for cities not participating in LGP’s by providing them with energy management services. Nearly half of the local governments in the IOU territories are not members of LGPs and do not have access to the expertise or resources to design and/or implement comprehensive energy efficiency programs. The BayREN offers an essential resource to provide these communities with the necessary support and collective strategy that will drive significant energy savings. Importantly, the BayREN is a network under which cities have equal opportunity and access to programs that serve their discrete climate, energy, and greenhouse emissions reductions goals.

¹ BayREN/ABAG’s county membership includes: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma Counties.

The BayREN provides an effective platform for local government energy programs that require regional consistency and scale. By harnessing the collective energy actions of local governments and leveraging existing and emerging resources, the BayREN enables more communities to benefit from deeper, more cost-effective energy efficiency savings than are currently achieved by local governments alone.

The BayREN directly supports the goals of the California Energy Efficiency Strategic Plan. CEESP Goal 5 supports actions that enable “energy efficiency expertise to become widespread and typical in local governments,” and support efforts that “will build significant additional local government capacity to design, implement and manage comprehensive energy solutions within their communities.”

The BayREN offers services in the following four key program areas: Single Family Home Upgrade, Multifamily Building Retrofits, Codes and Standards, and Financing.

Single Family Home Upgrade. The BayREN built on the experience and accomplishments of its members in residential programs, including Energy Upgrade California Home Upgrade, to participate in improvements to Home Upgrade, and to drive more robust uptake in Advanced Home Upgrade.

Multifamily Upgrade. This program fosters high market demand for incentives that require an energy upgrade scope, and encourages deeper retrofits throughout the building’s life cycle, not just at the time of a major renovation.

Codes and Standards. The BayREN works with local governments to measure, monitor, and improve compliance with energy codes, as well as develop energy efficiency policies and ordinances.

Multifamily Capital Advance. The BayREN provides capital resources for upgrades to multifamily mid-range housing, allowing this hard to reach market an attractive option for implementing energy efficiency measures.

Commercial PACE. This program provides marketing tools and contractor support to drive uptake in Commercial PACE projects.

Pay as You Save (PAYS™). This program offering is an innovative water-energy nexus pilot for on-water-bill financing of a diverse menu of water efficiency and energy efficiency measures.

II. 2014 Energy Efficiency Program Overview

A. Single Family Home Upgrade

Program Description

The BayREN is the exclusive implementer of Home Upgrade within the BayREN territory. In addition, the BayREN counties have capitalized on resources, expertise and assets built under the America Reinvestment and Recovery Act (ARRA) to drive more robust participation in Advanced Home Upgrade. Incentives under Home Upgrade are paid throughout the Bay region by the BayREN. Installation incentives under Advanced Home Upgrade are paid throughout Pacific Gas & Electric's ("PGE") service territory (including the BayREN 9-county region) by the utility. In order to drive more robust uptake of the Advanced Home Upgrade offering, the BayREN supplements the utility program and incentives with (a) a multi-tiered ME&O campaign of local and regional tactics; (b) a home energy assessment incentive of \$300; and (c) technical and referral assistance through the BayREN's Home Energy Advisor.

Home Upgrade is a points-based, prescriptive incentive program that eliminates the need for energy modeling and reduces the number of homeowner interactions in an attempt to demystify the whole house energy efficiency upgrade approach. The Home Upgrade program offers a balanced approach intended to produce a high volume of energy efficiency upgrades while maintaining a reasonable level of technical rigor and quality assurance.

All work must be performed by an Energy Upgrade California® Home Upgrade Participating Contractor. The program is open to homeowners of single-family, detached homes in BayREN territory who are customers of PG&E.

The BayREN developed a Home Upgrade Training Curriculum to attract and enroll a broad pool of Participating Contractors throughout the BayREN region. Upon identification of this gap in August 2013, the BayREN partnered with Build It Green, and commenced its Home Upgrade Certification Training Schedule in November 2013. The BayREN closely aligns capacity to enroll contractors with the perceived potential of the Home Upgrade model as a responsible but streamlined on-ramp for the hard-to-reach residential sector of consumers with restricted understanding of energy efficiency benefits and co-benefits. BayREN held seven, two day trainings in 2014.

The BayREN Single Family Residential model includes the Home Upgrade Advisor ("HUA"), developed to offer both consumer-facing and contractor-facing services. The HUA is poised to far exceed its original program performance target in terms of consumers served. More importantly, early polling indicates that Home Upgrade projects assisted by the Home Upgrade Advisor generate an average project scale 41% higher than those unassisted; and an average Advanced Home Upgrade project scale 18% higher than those unassisted by the HUA.

Home Upgrade was launched throughout the BayREN in late September 2013, following initial approval of Home Upgrade by the CPUC in July 2013, and a further modification based on points allocations in August 2013.

Strategies Implemented in 2014

- Home Upgrade rolled out at the end of September, 2013. Top application submission periods were spring 2014 and fall 2014.
- By December 2014, 1,245 rebates were paid out to 684 Home Upgrade projects and 561 Advanced Home Upgrade Assessment Incentives, for a total of \$1,630,645.50.
 - On average, Home Upgrade projects cost \$14,013 and received \$2,148 in incentives
- Deployment of a Home Upgrade Advisor providing both consumer- and contractor-facing support; 549 total accounts and 1,020 referrals to complementary programs.
- Subsequent to program approval by the CPUC, the BayREN assumed training program development/execution for Specialty Contractors. Since implementation, 203 Specialty Contractors have received new Home Upgrade training.
- Developed contractor outreach strategies targeted towards specialty trade contractors in an effort to recruit participation in building performance trainings and the Energy Upgrade California® Home Upgrade Program.

B. Multifamily Upgrade

Program Description

This BayREN program fills an existing program gap by providing a “middle of the road” participation path for multifamily building owners. It achieves deeper and more customized savings than direct install or single measure programs, but does not carry the up-front cost of an investment grade energy assessment associated with a whole-building performance program. The overwhelmingly positive response from the multifamily sector indicates that the program has succeeded in filling this gap and taps into previously elusive savings potential. The multifamily program is available to building owners within the BayREN territory.

Strategies Implemented in 2014

- The program launched in July, 2013 and conducted targeted outreach in the fall of 2013, and exceeded its unit goals for technical assistance and incentive reservations in 2014.
- Free technical assistance that provides a customized scope of work, serving approximately 36,031 units in 2013/2014.
- A simple, flat incentive of \$750 per unit on multiple measures saving 10% or more of their whole building’s energy usage:
 - Approximately 10,284 units worth of incentive were reserved in 2014
 - 8,834 units completed upgrades, receiving \$6,287,172.13 in incentive for a total of 125 completed projects in 2014
 - 6,164 units referred out to other multifamily incentive programs in the Bay Area that were better suited for their scope of work

C. Codes and Standards

Program Description

The Codes and Standards Program sought to:

- Establish a Regional Forum to share best practices, provide resources, and build regional expertise in green building and energy policy
- Assess the rate of energy code compliance in the nine County region
- Establish countywide facilitators and coordinators in each Bay area county
- Consult and coordinate with local, regional, state, and national organizations on enhancement of energy codes and code compliance and enforcement practices
- Survey public and private sector building professionals to determine the greatest issues with energy code compliance, enforcement, and green building practice
- Assist local governments in the Bay Area with the development and refinement of energy policies and ordinances

Strategies Implemented in 2014

The Codes and Standards program was launched in mid-2013, and initiated a variety of strategies to meet its Program Implementation Plan requirements and goals. The strategies implemented in 2014 were:

Baseline Evaluation: Fifteen city and county building departments volunteered to participate in the BayREN Codes & Standards Permit Resource Opportunity Program (PROP). PROP visits involve the BayREN Codes & Standards team spending (usually) two working days with individual building departments to engage and interview key staff, observe their permitting processes, and conduct plan reviews and field inspections of several permitted projects that are complete enough for installed energy measures to be inspected and compared with permitted conditions. Following each visit, the CBO receives a report summarizing any discrepancies found between permitted and installed energy features, and specific suggestions for improving compliance.

The activities included in BayREN PROP visits are designed to yield the following information:

- Characterizing annual energy code-related building permit activity, by permit type and volume
- Identifying which permits involving energy code measures are plan reviewed, and which are not
- Comparing energy code compliance levels from application, permitted, and field inspection phases
- Understanding logistical challenges and constraints to improved energy code enforcement
- Identifying any “energy code champions” or best practice energy code enforcement strategies

This information helps BayREN prioritize its compliance improvement efforts for each jurisdiction, and for each energy code enforcement role (i.e., counter staff, plan reviewers, building inspectors, and CBOs). In aggregate, these findings inform development of a regional energy code compliance baseline, resources and recommendations for compliance improvement, and trainings that target unmet needs.

Training: BayREN trainings are designed to educate both local officials and the private sector building community in key aspects of code compliance and enforcement. Training topics are offered as a series and each training series addresses specific energy code compliance strategies and best practices. BayREN offers 6 different Title 24 training series as outlined below. Trainings could be scheduled as a 60 minute Brown Bag module or as a longer Workshop module. The Program developed a training plan that outlined a strategic approach to educating the program's target audience in key aspects of energy code compliance. The Program developed a menu of trainings to be offered based on feedback from the program's Compliance Survey results. No tests were administered at any of the trainings.

Workshops modules could be delivered separately or as a combined 4 hour workshop depending upon need. BayREN recommended that both workshop modules of a selected series be completed, though some jurisdictions choose only one of the two workshop modules in that series. BayREN county representatives worked with local building departments within their counties to schedule the trainings.

Regional Forums: Regional Forums are a half-day meeting in which elected officials, appointed policy board members, local building department Chief Building Officials and other leadership roles, and regional codes and standards advocates focus on high-level policy and program design issues on energy efficiency and energy code compliance. The primary purpose of the Regional Forums is to allow sharing of best practices (on topics such as codes & climate action planning, adoption of green building codes, and benchmarking ordinances) and lessons learned (in the development of local reach codes and energy policies). Regional Forums occurred every two months from January 2014 through December 2014. BayREN held 6 Regional Forums over the course of 2014 that focused on high-level policy and program design issues on energy efficiency and energy code compliance. Forum topics were developed by the Codes and Standards Committee and informed by participant feedback received at the previous forum.

Tools: permit guides were developed early on in 2014 based on feedback received during PROP visits to building departments. These permit guides are housed on the BayREN website for public use. The program did not actively distribute the permit guides to building departments, but program staff, including consultants, trainers and committee members did periodically email training participants and local building department contacts links to the guides on the BayREN website (<https://www.bayren.org/codes/resources>).

Building science and quick reference guides were developed towards the end of the 2014 program cycle, based upon training participant feedback, and requests made by chief building officials at PROP visits.

D. Multifamily Capital Advance

Program Description

The Multifamily Capital Advance program advances to participating lenders up to 50% of the total loan principal related to the costs of approved energy efficiency measures, at 0% interest rate. This arrangement results in an effective interest rate of as low as half of the lender's interest rate, significantly reducing the cost of capital for the property owner. The program is designed to work within a larger program and minimize additional administration by leveraging the scope development and quality assurance provided by the BayREN multifamily subprogram or similar programs. The program

also leverages lenders' existing infrastructure and procedures, minimizing the set-up requirements and time delay. The program utilizes an open market model to better serve the multifamily sector, which typically has limitations on supplemental loans and requires flexibility to choose their lenders.

Strategies Implemented in 2014

- The program was authorized to proceed in September 2013 through the CPUC Financing Proceeding
- Program development began after the authorization. In 2013, BayREN recruited a consultant for lender outreach, and a loan servicer for the BayREN portion of loan repayments from lenders
- Two financial institutions have signed Participation Agreements

E. Commercial PACE

The Commercial PACE Financing Subprogram is intended to drive uptake in Commercial PACE projects through a program responsive to the priorities of building owners and operators, contractors, engineers, and lenders. The program was approved as a limited non-resource program that included enrollment and judicial validation of additional counties into Commercial PACE Programs, and minimally-scaled administration and outreach activities.

Strategies Implemented in 2014

In 2014, development commenced for the creation of county-customized commercial building profile inventories (the Commercial Building Inventory & Profiling Tool(s)), comprised of two interfacing resources and support:

- Individual county-by-county reports which analyze commercial building patterns, identify and define market segmentation profiling indicators, and describe the methodology behind the indicators and the profiling capacity of the Commercial Building Inventory & Profiling Tool
- Individual county-by-county Commercial Building Inventory & Profiling Tool, which use a baseline of more than 25 construction, ownership, performance and financial indicators and a mechanism that allows each county to game single or bundled indicator combinations. This functions as a commercial market segmentation tool, to identify key building candidates among commercial, retail, and hospitality sectors for energy and water improvements
- Option to further customize the tool through additional indicator
- Completed judicial validation of two counties in the CaliforniaFIRST PACE Program

F. Pay As You Save® (PAYS)

Program Description

The BayREN PAYS® Program is working to support Partner Municipal Water Utilities' (Town of Windsor, City of Hayward, and East Bay Municipal Utility District) implement their PAYS Programs.

Implementation of these programs will facilitate at least 2,000 utility projects forecasting 35,000 therms,

16,000,000 gallons of water, and 190,000 kWh, not including embedded energy from water saved, annual savings. Upon Partner Utility efforts, support activities are proposed to expand in 2015.

BayREN PAYS is based upon the Better Buildings Program (DOE) funded Windsor Efficiency PAYS® pilot, where over five percent of the Town's residential units participated in the pilot in its first year, significantly outpacing Windsor's other conservation programs. BayREN PAYS Partner Utility programs are designed to scale and replicate the work from Windsor, and facilitate similar rapid project uptake. BayREN PAYS Program activities are focused on supporting specific Partner Utility program development and implementation and vetting general on-bill financing program components that will enhance these Partner Utility Pays (or other on-bill) Programs. Components include:

- A self-sustaining resource efficiency program in which participating customers pay for installed measures and program operation through a regular surcharge attached to their meter
- Unique customer protections that drive program participation, including the assurance that the participant's utility bill savings from installed measures will exceed their surcharge. Customized technical assistance to address the diverse and complex needs of municipal water utilities and customers

Strategies Implemented in 2014

- Outreach to sixteen local water agencies to promote engagement in a BayREN PAYS partnership
- Selection of four Partner Utilities (City of Hayward, Town of Windsor, East Bay Municipal Utility District, and San Francisco Public Utilities Commission) based upon utilities':
 - Ability and commitment to implement an on-bill pilot within the 2013-14 period;

Expressed interest to include measures that would generate sufficient water, gas, and electricity savings so that the on-bill surcharges for installed measures would still result in immediate net savings for participants

- Green Hayward PAYS® with the City of Hayward.
 - Supported the development of multifamily residential indoor and multifamily/commercial landscaping services approved by City Council February 2014. Field-ready pending final City approval of funding. Services include indoor plumbing fixtures, common area energy measures that deliver savings to the property owner (lighting, hot water distribution, etc.), and weather-based irrigation controller installation. Current pipeline for interested properties in receipt of a pre-screening visit includes 6 properties representing over 1,200 units
 - Forthcoming program opportunities: Hayward is committed to serving 2,000 multifamily units in 2015, and is interested to expand a successful pilot to serve more multifamily units and provide additional customer classes
 - Hayward program will focus on multifamily residential: indoor plumbing fixtures, common area energy measures that deliver savings to the property owner (lighting, hot water distribution, etc.), and weather-based irrigation controller installation
- Windsor Efficiency PAYS® with the Town of Windsor
 - Supported the implementation of on-going Residential field services for single and multifamily. Services include indoor plumbing fixtures and outdoor turf conversion to drought tolerant landscapes.

- Supported the development of commercial landscaping services, approved by Town Council May, 2014, and contractor training in December 2014. Services to include installation of weather based irrigation controllers and irrigation system repairs
- Forthcoming program opportunities:
 - With access to Windsor project records dating November 2012, BayREN to assist with evaluating key on-bill issues such as actual (vs. estimated/ projected) water savings, surcharge transferability, and customer repayment histories
 - Residential single family program design revisions can be easily implemented and will facilitate additional water savings for a Partner Utility that will most likely face strict water reductions in 2015 due to the drought
- Windsor program will include a new Commercial Landscaping Component that promotes installation of weather-based irrigation controllers and turf conversion
- Windsor has committed to retrofitting 75 commercial customers' landscapes, and offers BayREN a record of on-bill projects (through the DOE pilot) dating to November 2012 to assist with evaluating on-bill performance
- EBMUD WaterSmart PAYS®
 - Supported the development of multifamily residential indoor and single family/multifamily/commercial landscaping components approved for test projects. Program contracts and agreements in review by EBMUD staff. Field-services expected to be available in 2015
 - Additional 2015 program opportunities: EBMUD test projects will inform EBMUD roll out of a Phase 1 PAYS pilot to a market that includes approximately 1.3 million water customers
- Research for SFPUC PAYS Potential
 - SFPUC seeks to focus on multifamily residential indoor plumbing fixtures
 - After preliminary research in 2013, SFPUC requested BayREN initiate program development in May 2014 to align with new water/waste water rates to be adopted in April 2014; program development efforts with SFPUC are currently on hold

III. Energy Savings

In 2014, only the Single-Family Home Upgrade and Multifamily programs were resource programs with reported energy savings. The overall reported savings are shown in Table 1.

Table 1. Electricity and Natural Gas Savings and Demand Reduction

Annual Results	Installed Savings	CPUC Goal Adopted	% of Goal	% of 3-Year Portfolio Goal	Balance
TOTAL 2014 Energy Savings (GWh) - Annual	1.776				
TOTAL 2014 Energy Savings (GWh) – Lifecycle	31.800				
TOTAL 2014 Natural Gas Savings (MMth) – Annual	0.222				
TOTAL 2014 Natural Gas Savings (MMth) – Lifecycle	3.337				
TOTAL 2014 Peak Demand savings (MW)	0.654				

BayREN NOTES: CPUC 2013-14 Goal for IOUs did not include BayREN-specific targets

Single-Family Home Upgrade

The original compliance filing goals filed in 2012 and April 2013 were based on Regional Energy Network (REN) work papers that were later not approved by the Energy Division in May 2013. Subsequently, the BayREN utilized approved IOU work papers, which produced lower goals and impacts. All Single Family Program cost effectiveness calculations in this filing use the approved IOU work paper for the Home Upgrade as the basis of energy savings.

Multifamily Upgrade

Multifamily project energy savings are based upon the EnergyPro Lite (EPL) tool developed in consultation with the Energy Division technical reviewer (Phase 1) for this program.

IV. Environmental Impacts

Environmental impacts are shown in Table 2. These results are generated by the Commission-approved E3 calculator, developed by Energy and Environmental Economics, Inc. (E3). E3 designed the calculator specifically to estimate cost-effectiveness in energy efficiency programs. E3-based emission estimates in a context other than energy efficiency programs should be avoided. Although emission data is available through the E3, D. 12-11-015 does not direct BayREN to track emissions.

Table 2. Environmental Impacts (tons of avoided emissions)

Annual Results [1][2]	Annual CO2	Lifecycle CO2	Annual NOx	Lifecycle NOx	Annual SOx [3]	Lifecycle SOx [3]	Annual PM10	Lifecycle PM10
2014 Total	2,289	40,704	1.15	20.39	-	-	0.064	1.15

BayREN NOTES: [1] Results from activity installed in 2014 only.

[2] Environmental impacts do not include any associated with Low Income Energy Efficiency or Codes and Standards programs.

[3] The avoided SO_x reductions are not calculated in the E3 calculator. It was determined by E3 that none of the IOUs use coal power on the margin and the energy efficiency savings have impact on the margin only. This is the basis for the E3 analysis as reviewed by all interested parties and approved by the Commission.

V. Expenditures

Table 3. Expenditures for 2014

Summary of Portfolio Expenditures	2013-14 Adopted Program Budget, Annualized	Cumulative Annual Expenditures, 2014	Percent of Portfolio Budget	Percent of Total Annual Expenditures
Administrative Costs	\$725,015	\$776,440	10.46%	8%
Marketing/ Advertising/ Outreach Costs	\$1,699,790	\$1,895,817	25.54%	20%
Direct Implementation Costs	\$4,997,220	\$6,934,300	93.43%	72%
Total Portfolio Expenditures	\$7,422,025	\$9,606,557	129.43%	100.00%

BayREN NOTES: [1] The CPUC has not authorized an EM&V budget for BayREN. Thus, total 2014 expenditures do not include budget or expenditures associated with EM&V.

[2] The BayREN Single Family Program was delayed in 2013 due to negotiations regarding program design and implementation, and thus had few projects completed in 2013. As a result, most of 2013-14 cycle budget was expended in 2014. Also, note that the BayREN Multifamily Program was fully subscribed in 2014 and thus requested and received additional funding during 2014. The program used those funds in order to provide incentives to additional qualified participants in 2014, and provide the additional program implementation support associated with those additional incentives. This explains why the total exceeds 100% of the Total Portfolio Expenditures.

VI. Cost Effectiveness

The Total Resource Cost Test (TRC) measures the net benefit of a program relative to the participant and administration costs. TRC Net Benefits (Net Rbn) subtracts Total TRC costs from Total Resource Benefits. Total Resource Net Benefit measures benefits by multiplying energy savings by avoided costs, then reduced by the net-to-gross ratio. Total TRC costs in Table 4 are the sum of total administrative costs and incremental measure or participant cost.

The Program Administrator Cost Test (PAC) measures net benefits relative to total program costs (including incentive and administration costs). PAC Net Benefits subtracts Total PAC costs from Total Resource Benefits, Net (Rbn). Total Resource Net Benefit measures total resource benefit by multiplying energy savings by avoided costs, then reducing by the net-to-gross ratio. Total PAC costs in Table 4 are the sum of total program administrative and incentive costs.

Table 4. Cost Effectiveness for 2014

Total Cost to Billpayers (TRC) [1]	Total Savings to Billpayers (TRC)	Net Benefits to Billpayers (TRC) [1]	TRC Ratio	Total Cost to Billpayers (PAC) [1]	PAC Ratio	PAC Cost per kW Saved (\$/kW) [2]	PAC Cost per kWh Saved (\$/kWh)	PAC Cost per therm Saved (\$/therm)
\$20,023,027	\$5,942,875	-\$14,080,152	0.30	\$16,669,023	0.36	25488	0.52	20,006,193

BayREN Notes: [1] Relative to the lifecycle savings indicated in "Table 1. Savings Demand Reduction"

[2] Values shown with market effects adjustment to benefits and cost

VII. Green Building Initiative

Executive Order S-20-04, signed by Arnold Schwarzenegger in December 2004, made energy and resource efficient high-performance buildings a priority for California. It set a goal of reducing energy use in state-owned buildings by 20 percent (from a 2003 baseline) by 2015 and encourages the private sector to do the same. D. 12-11-015 makes no mention of tracking BayREN contributions to Green Building Initiative goals. While some programs likely led to high performance in state-owned buildings, no data is available.

VIII. Savings by End-Use

Only Single Family Home Upgrade and the BayREN Multifamily programs contributed to 2014 installed energy savings. Home Upgrade savings are calculated by the approved Phase 1 PECE EUCA Calculator Tool (v10_20130224 - Work paper Savings) for projects reserved prior to October 2014 and the approved Phase 2 PECE EUCA Calculator (v3_20140602) for projects reserved starting in October 2014. Given the package nature of projects, each package has a mix of energy savings across HVAC, Water Heating, and Other—these have been combined under “Other” in Table 5.

Table 5. Annual Savings by End-Use

2014	GWH	% of Total		MW	% of Total		MMTh	% of Total
Residential	2.076	100.00%		0.568	100.00%		0.262	100.00%
Appliances	-	0.00%		-	0.00%		-	0.00%
Consumer Electronics	-	0.00%		-	0.00%		-	0.00%
HVAC	-	0.00%		-	0.00%		-	0.00%
Lighting	-	0.00%		-	0.00%		-	0.00%
Pool Pump	-	0.00%		-	0.00%		-	0.00%
Refrigeration	-	0.00%		-	0.00%		-	0.00%
Water Heating	-	0.00%		-	0.00%		-	0.00%
Other	2.076	100.00%		0.568	100.00%		0.262	100.00%
Nonresidential	-	0.00%		-	0.00%		-	0.00%
HVAC	-	0.00%		-	0.00%		-	0.00%
Lighting	-	0.00%		-	0.00%		-	0.00%
Office	-	0.00%		-	0.00%		-	0.00%
Process	-	0.00%		-	0.00%		-	0.00%
Refrigeration	-	0.00%		-	0.00%		-	0.00%
Other	-	0.00%		-	0.00%		-	0.00%
Low Income Energy Efficiency	-	0.00%		-	0.00%		-	0.00%
Codes & Standard Energy Savings	-	0.00%		-	0.00%		-	0.00%
BayREN Annual Portfolio Savings	2.076	100%		0.568	100%		0.262	100%

BayREN Notes: [1] Results from activity installed in 2014 only.

[2] Singly Family Home Upgrade and Multifamily programs are custom comprehensive retrofit programs that install multiple projects simultaneously across a variety of end-uses.

IX. Commitments

Table 6. Commitments

Made in the Past Year and Implemented by December 2014			
Committed Funds	Expected Energy Savings		
\$	GWH	MW	MMTh
\$7,474,917	1.776	0.654	0.222

BayREN Notes: Savings taken from Annual values reported in "Table 1. Savings Demand Reduction"

Appendix A: BayREN Programs for 2014

CPUC ID	Program Name	Date Added	Date Removed
BayREN01	Single Family Home Upgrade	1/1/2013	n/a
BayREN02	Multifamily	1/1/2013	n/a
BayREN03	Codes and Standards	1/1/2013	n/a
BayREN04-1	Multifamily Capital Advance	1/1/2013	n/a
BayREN04-2	Commercial PACE	1/1/2013	n/a
BayREN04-3	Pay As You Save (PAYS)	1/1/2013	n/a