Welcome

County of Los Angeles
Internal Services Department

Commissions, Ratepayers, and Colleagues:

We’re pleased to present this 2017 Annual Report on behalf of the SoCalREN.

It’s been a dynamic year—leading with assessment, progressing into action, and closing with remarkable and unprecedented performance that exceeded ambitious expectations. Strategy and planning for the 2018–2025 Rolling Portfolio cycle have been at the forefront, with efforts directed toward even greater environmental, social, and economic returns to be delivered from REN programs and leveraged assets to the community.

This year’s potent transition is captured in the following pages, along with a preview of Rolling Portfolio objectives.

John L. Geiger
Standards & Practices, General Manager

Demetra J. McBride
Environmental Initiatives Division Manager
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The Southern California Regional Energy Network (SoCalREN) serves residents, businesses, and public agencies throughout the areas served by Southern California Edison (SCE) and SoCalGas®.
EXECUTIVE SUMMARY

The County of Los Angeles administers and manages the Southern California Regional Energy Network (SoCalREN), including the design and implementation of public agency facilities upgrades, single-family and multifamily residential retrofits, Codes and Standards, Energy Equity, Workforce Education and Training, and energy efficiency behavioral transformation programs.

The SoCalREN undertook aggressive actions throughout 2017 to optimize implementation and outcomes for the 2017 Portfolio. These actions were also designed to position the Portfolio for transition from customary two-year cycles to a California Public Utilities Commission (CPUC) Energy Efficiency Rolling Portfolio that will establish funding and potential for eight years (2018–2025).

Key indicators of improvement and performance optimization in 2017 include:
- An increase of 2100% in Multifamily Program energy savings
- A nearly 300% increase in Public Agency Program energy savings
- Cost-Effectiveness improvement of nearly 300%
- Streamlined administrative and marketing costs
- Success in training and establishing Minority and Disadvantaged Enterprise Businesses and individuals
- Overall Portfolio share of approximately 38% in Disadvantaged Communities
- Active regulatory participation that secured and increased opportunities for government Program Administrators (RENS and Community Choice Energy Authorities)
- Enhanced relationship-building, collaboration, and coordination with SCE and SoCalGas

To achieve these improvements in 2017, the SoCalREN:
- Conducted and commissioned program performance assessments
- Implemented corrective adjustments to Resource Programs (programs that produce direct energy savings)
- Restructured Portfolio management and administration
- Retired redundant or non-performing activities and effected permitted funds shifts into programs that produce direct energy savings; specifically, the Residential Loan Loss Reserve, Water-Energy Nexus, Regional Energy Project Tracking and Permitting (CEEPMS), and Green Building Labeling Programs

“What I like best about my Home Upgrade is breathing cleaner air since I have asthma.”

Homeowner in Norwalk
The energy savings generated by homeowners, businesses, and public agencies participating in the SoCalREN lead to reduced carbon emissions, contributing to cleaner California skies.

✓ Integrated the Public Agency Marketing, Education and Training, and Aggregated Regional Procurement Programs into the Public Agency Program. Through this integration and assimilation, the SoCalREN realized efficiency and budget savings in the avoidance of duplicate or redundant administration and other implementation costs.

✓ Required third-party implementers to account by project, to track and improve program cost/kWh to reduce consumption.

✓ Implemented Quality Assurance/Quality Control (QA/QC) measures and routine measurability-accountability reviews with third-party implementers.

The SoCalREN also engaged the CPUC, its Energy Division, and the Office of Ratepayer Advocates to aggressively evaluate its programs, mine Commission concerns and constructive criticism, and to report progress. This dialogue has been essential to the rigor of the SoCalREN’s self-examination and the maturation necessary to fix the RENs as enduring Program Administrators in the State’s Energy Efficiency Portfolio.

As a result of these initiatives, the SoCalREN Portfolio is evolving, maturing, and self-optimizing, with further near-term enhancements and actions summarized in this Annual Report as Rolling Portfolio Key Objectives.
SoCalREN
PORTFOLIO OF
PROGRAMS

MULTIFAMILY
UPGRADES

SINGLE-FAMILY
IMPROVEMENTS

ENERGY EFFICIENCY
INCENTIVES

WATER EFFICIENCY

COMMUNITY
BENEFITS

SUSTAINABILITY

CLEAN ENERGY
SOLUTIONS

MITIGATING
GHG EMISSIONS

SUSTAINABILITY

COMMUNITY
BENEFITS

WATER EFFICIENCY

INCENTIVES

ENERGY EFFICIENCY

SUSTAINABILITY

COMMUNITY
BENEFITS

SoCalREN PORTFOLIO OF PROGRAMS
SoCalREN PROGRAM STRUCTURE

The Southern California Regional Energy Network (SoCalREN) comprises a portfolio of sub-programs that provide residential, financial, and public agency services encouraging and supporting energy conservation.

When the California Public Utilities Commission (CPUC) authorized the SoCalREN, Commission policies and accounting structure defined the REN as a single program under existing Southern California Edison (SCE) and SoCalGas portfolios. The sub-programs that compose the SoCalREN were designed locally to meet the needs of residents and businesses located within the coverage area (see pages 4 and 5 to view a map of the SoCalREN coverage area).

The following section takes a detailed look at these sub-programs and the services they provide to residents, businesses, and public agencies. In addition to a summary of the services provided by each sub-program, information on budgets and savings achievements are detailed.

CPUC Classifications as Related to the SoCalREN

All energy efficiency programs authorized under the CPUC, including the SoCalREN’s sub-programs, are classified by both type and sector.

Resource programs claim energy savings and provide financial incentives, usually at a measure level. These programs are typically referred to as Deemed or Custom incentive programs, with the stated intention of driving participants to pursue a higher level of energy savings above code than they would have completed were an incentive not available.

Non-Resource programs do not claim energy savings directly; rather, such programs typically influence customers to pursue energy efficiency opportunities. For example, a non-resource financing program can provide the participant with the means to proceed with a project that will go on to claim energy savings through an established resource program.

Each resource or non-resource program is further categorized into one of six sectors:

- Agricultural
- Commercial
- Cross-Cutting
- Industrial
- Public
- Residential

The sub-programs offered through the SoCalREN are a mixture of resource and non-resource programs covering three of the six sectors: Residential, Public, and Financing (Cross-Cutting). The SoCalREN does not address the three remaining sectors, as they were not part of the SoCalREN’s original filing.

Prior to implementation, all programs must have an approved Program Implementation Plan (PIP) on file with the CPUC. The PIP provides transparent details on each program’s design and intent, and is available to the public upon request. The Program Profiles featured in this report provide a high-level summary of the information covered by each sub-program’s PIP.
Improve on the SoCalREN During 2017

Throughout 2017, the SoCalREN took a number of aggressive actions to optimize implementation and outcomes for the 2017 portfolio, and also to make necessary strategic changes in preparation for the Rolling Portfolio that begins in 2018. These changes include:

- Closing redundant or non-performing activities, refining spending levels for “soft impact” programs, and shifting funding into programs that produce energy savings
- Closed the Water-Energy Nexus Program
- Closed the Regional Project Tracking and Permitting (CEEPMS) Program
- Closed the Green Building Labeling Program
- Closed the Residential Loan Loss Reserve Program
- Moved the Aggregated Regional Procurement and Marketing, Outreach, Education, and Training Programs under the existing Integrated Whole Building Retrofit (Public Agency) Program
- Performing strategic outreach to take the Multifamily Program project pipeline from weak to fully subscribed with a waitlist for participation
- Taking over under-performing programs and driving energy upgrade projects

- Implementing Quality Assurance/Quality Control (QA/QC) measures in consultant/vendor billing
- Preparing optimization strategies for rebidding the SoCalREN portfolio, including:
  - Pay-for-performance procurement
  - Replacing single-implementer program contracts with a more competitive multiple-implementer procurement
  - Pivoting toward a measurability standard, embedding programs with actual energy savings targets
  - Developing competitive 2018 pilot proposals, designed for scalability and replicability
  - Containing investment in “soft impact” programs
  - Working with the CPUC to arrive at a reasonable yet responsible cost-effectiveness methodology and targets for SoCalREN

The SoCalREN continues to enhance the portfolio of programs offered based on market conditions, customer feedback, CPUC feedback, and necessary innovation to drive customers to pursue energy efficiency projects far above and beyond existing building codes. The 2018 SoCalREN Business Plan strives to offer additional resource programs, innovative financing options, and programs to help address “to code” stranded savings. These current and future efforts anchor the SoCalREN’s position as a continuously evolving Program Administrator focused on the CPUC’s goals of cost-effectiveness and success.

"The rebate was a big help in financing the upgrade."

Homeowner in Whittier

The data on the following pages (kWh, kW, therms, etc.) contains the best available data forecasted and information available at the time of publication. All data is subject to minor changes based on actual final savings claims with the CPUC and all data will be finalized in the CPUC Annual Report submitted in 2018.
SoCalREN PROJECT LOCATIONS

Residential

Multifamily

Public Agencies
Includes:
City Halls/Civic Centers
Parks
Public Services
Schools/Libraries
Street Lighting
Water/Wastewater
Other

= 6 projects in area

Total: 6 projects in area
Both Home Upgrade and Flex Path encourage single-family homeowners to take the first step toward a more energy-efficient future by providing financial incentives on qualifying high-efficiency retrofits and measures, including heating and cooling equipment, insulation, and windows.

The Flex Path Residential program was developed during and carried over from the federal 2010–12 stimulus of the American Recovery and Reinvestment Act, or ARRA. Home Upgrade is a second-generation entry point retrofit program, redesigned from its ARRA-based predecessor. Both programs were created to demystify home energy efficiency improvements for property owners, and to drive the whole-home approach, as opposed to incremental single energy efficiency measures.

From a list of eligible measures, participants work with a Participating Contractor to select a combination of preferred measures, earning up to $3,000 in incentives. This prescriptive approach gives homeowners freedom to undertake multiple upgrades over time and according to their specific needs. Owner-occupied single-family detached homes are eligible under these programs, and work must be performed by a trained, qualified, and certified Home Upgrade Participating Contractor.

The Energy Upgrade California Home Upgrade (Flex Path) program has struggled in the market as a basic-level upgrade option burdened with design constraints and complex documentation requirements. This has suppressed interest by contractors as well as homeowners.

As a result, the SoCalREN has endeavored to improve Residential performance through marketing, outreach, and contractor relationships, and to bundle the Home Upgrade Program as a Residential energy efficiency option, along with Residential PACE, and the utilities’ Advanced Home Upgrade offering.

In 2017, the SoCalREN assessed a wide variety of Residential Programs, and has developed scenarios, modified program designs, a “hybridized” proposal, and leveraged partnerships with the potential to increase the performance and cost-effectiveness of the Single-Family Residential market.
The Multifamily Program provides audit incentives and retrofit rebates to building owners and managers to promote whole-building upgrades, with an emphasis on driving building improvements in underserved neighborhoods and Disadvantaged Communities.

Building owners can earn Multifamily Program incentives for comprehensive energy efficiency upgrades to qualifying structures of at least four units (although the Program’s footprint to date is dominated by medium-sized buildings between 12 and 563 units). Projects must install at least three energy efficiency measures and achieve a minimum 10% improvement over existing conditions.

The SoCalREN Multifamily Program offers a tiered promotion strategy designed to stimulate multi-measure upgrades. The Program was originally developed as a flexible turnkey solution, composed of technical assistance, advanced building audits, program implementation, and construction/installation incentives. While the basic assumptions were sound, over time the Program migrated to an audit-incentive program that did not convert building audits into corrective upgrades. Actual energy savings were weak compared to investment, evidenced by the 2016 Multifamily score of 0.3 Total Resource Cost calculation (TRC is the process by which the CPUC measures program cost-effectiveness, with a Portfolio-wide goal of 1.00 to 1.25).

In February 2017 the County’s Office of Energy + Environment (OEE) launched a series of comprehensive performance assessments on a program-by-program basis, to identify corrections that would drive down administrative costs and increase energy savings. A resulting series of design adjustments and redesign measures were folded into the original Multifamily Program, incorporating a number of strategies similar to pay-for-performance standards and models. By May 2017 the Program attained a fully subscribed pipeline and substantial project waitlist. Current year-end calculations demonstrate a 2100% increase in kWh savings in 2017, with a projected Program TRC of 1.25.

**2017 Strategic Program Development**

Since February 2017, the SoCalREN Program Administrators have assessed additional enhancements to the Program, which will be integrated into the 2018 Rolling Portfolio launch. Also, the Administrators are considering market segmentation strategies, additional targeted marketing tactics, and the potential for a focus on multifamily rental buildings.
The Workforce Development Program was launched as a support system to provide training, tools, and opportunity to minority participants across the region, focusing on energy and water efficiency measures and installations. In 2018, the Program looks to work with the CPUC to expand offerings that reflect the State’s future plans to reinvent the “grid,” deploy microgrids, and approach energy efficiency from an integrated approach of distributed generation (with combined measures and technologies, including energy efficiency, renewables, battery storage, electrification of transportation, and automated systems).

The Workforce Development Program was launched in 2014 to drive and generate upstream and downstream impacts through energy sector skills training and certifications for minority participants and focused deployment in underserved areas. The SoCalREN’s key implementer in this initiative, Emerald Cities Collaborative (ECC), serves to facilitate the participation of under-represented individuals and businesses in the energy efficiency sector through workforce and business development and capacity building. These efforts are leveraged from previous activities to build upon the workforce development infrastructure and alignment, to remove barriers to participation that commonly occur among Disadvantaged Communities, and to support a pathway from pre-apprenticeship training to apprenticeship. The Program also reaches beyond training and apprenticeship to forge continued capacity building support for small minority contractors through an E-Contractor Academy Program.

The implementation of the Local Worker Hiring Program (LWHP) for energy efficiency projects awarded by the County of Los Angeles Internal Services Department helps establish the foundation for the expansion of the LWHP within the SoCalREN. Expansion of the LWHP supports a skilled, diverse workforce to deliver greater energy savings, and broadens choice and opportunity among underserved communities and resident workforce.
To ensure compliance with the LWHP provisions and to report on the inclusion of under-represented individuals performing energy efficiency project work, ECC continues to provide contractor training on how to use LCP Tracker, an online certified payroll system, and share its best practices and strategies for local worker inclusion.

2017 Strategic Program Development

The County’s SoCalREN Administrator is working with ECC to identify more aggressive social, economic, employment, and equity goals for this Program. The Program may also diversify stakeholders in the Program, and establish new tangible, measurable, and accountable targets for performance and outcomes with the expectation that the Program is capable of delivering not only direct benefits, but a suite of cascading co-benefits as well (e.g., expanded training with tools and software, education and training in the future design of fully-integrated microgrids, and opportunities in both the private and public sector). Through early discussions with the CPUC, the OEE is exploring the potential to expand the training scope of this Program to anticipate greater employment opportunity not simply in energy efficiency, but in electrification, microgrids, and distributed generation installations and systems.

“The Program helped us grow to what we are today. We are still researching ways to grow and make a positive impact on our community by continuing to hire a diverse workforce.”
Liz Perez, President of GC Green
The technical support, financial assistance, and project management expertise from start to finish provided to districts and local governments through the SoCalREN Public Agency Program has led to the implementation of 209 energy and/or water efficiency projects in public facilities and sites throughout Southern California. In the 2017 calendar year, the Program exceeded its 2016 performance, serving 102 local governments and districts, completing 100 energy and/or water efficiency projects, and, producing nearly 30 Million kWh in energy savings. Moreover, approximately 60% of the Program’s participating cities are underserved and Disadvantaged Communities.

The SoCalREN’s Public Agency Program is the first fully-integrated, turnkey program serving public agency, district, and local government facilities and buildings. The Program was designed to fill substantial gaps in existing programs (such as Local Government Partnerships), and to address deep inconsistencies and gaps governments face in the technical, design, implementation and financing resources, and expertise necessary to build and implement meaningful energy efficiency plans for buildings and sites. This offering couples the upgrade program with building performance benchmarking and reporting, and offers a demonstration framework for expansion of energy performance and management reporting. The Public Agency Program was further expanded in 2016, through integration of an Aggregated Regional Procurement element.

The SoCalREN offers customized, comprehensive technical support services to public agencies to enable them to implement deeper and more cost-effective energy upgrades and energy management practices. The Program is now available on a supra-regional basis, with participating...
facilities throughout 104 cities, counties, water agencies, special districts, and school districts.

More specifically, the Program offers a full spectrum of turnkey services, including:

- Customized guidebooks and templates for energy efficiency measures, tailored for local government needs
- Technical support, featuring a Local Government Needs Assessment Study (whole building approach), building audits, use of energy information (Enterprise Energy Management Information Systems, or EEMIS) and building performance management systems, and remote auditing software tools
- Facilitated procurement processes and best practices
- Enrollment in joint and bulk purchasing, supported by qualified vendor lists
- Direct support in identifying and accessing financing options, including available credits and incentives
- Design/install engineering that leverages aggregated measures to drive down project costs and return economics, and to create building-specific pro-formas that demonstrate advantages of deep retrofit implementation strategies
- Growing resource library of case studies and best practices, supplemented by Program Project studies

"It’s a great project for Whittier. It’s green and it helps us save energy. We’re getting a lot of bang for our buck. It’s win-win-win all the way around."

Joe Vinatieri, Mayor, City of Whittier
# RESIDENTIAL MARKETING, EDUCATION, AND OUTREACH

## Annual Budget

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## Homeowner Events

- **13**

## Local Community Events

- **38**

Resulting in

- **23** Assessment Vouchers Submitted
- **9,559 kWh Savings**
- **2,165 Thersms Savings**

The Residential Marketing and Outreach Program informs property owners, building contractors, and other stakeholders about the SoCalREN’s energy efficiency offerings, using direct outreach, events, and a variety of media tools.

Marketing, Education, and Outreach (ME&O) is an essential component of nearly all CPUC Energy Efficiency Programs. Under the SoCalREN portfolio, there are several ME&O tracks, including one uniquely designed to promote both Single-family and Multifamily (Residential) SoCalREN programs.

Residential ME&O includes:

- Engagement and Facilitation Events (key stakeholders, working groups)
- Community Events and Outreach, including tabling opportunities at regional conferences, home shows, and forums
- Home Upgrade Advisor and Call Center
- Stakeholder Newsletter
- Social Media and Websites
- Special Promotions and Municipal Partnerships
- Marketing tools such as vouchers, coupons, and competitions (Marketing Champions)

ME&O programs are traditionally classified as non-resource programs, activities that do not result in specific and measurable energy savings. Instead, ME&O has been conventionally designed and implemented to raise awareness and influence behavior.

Beginning in 2018, the SoCalREN will allocate certain ME&O funding for deployment of greater analytics that will identify probability, compatibility, and capability targets. Our goal is to evolve ME&O from awareness-building to a call-to-action agenda, by piloting tactics and strategies that can be measured and reliably linked to retrofits and upgrades, and to define circumstances where ME&O might be measured as a quasi-resource activity. This is a modal shift from the opportunistic to the strategic.
This Low-Income Single-Family Program educates Community Development Commission participants about home energy efficiency opportunities and trains contractors who work with low-income homeowners.

The Low-Income Single-Family retrofit program works primarily with the Community Development Commission (CDC) of the County of Los Angeles to develop and implement business processes that connect CDC participants with Energy Upgrade California Home Upgrade incentives and high-quality Participating Contractors. The Program educates potential participants and coordinates requirements. In 2016, the Program expanded to coordinate with additional local governments within the SoCalREN coverage area.

Another objective of the Program is to educate and train residential building retrofit and rehabilitation contractors from the CPUC Home Upgrade Program and cross-leverage their training and capacities to programs that serve low-income homeowners. Dual program training is expected to lead to the same comprehensive upgrades in low-income homes that occur in standard Home Upgrade residences.

2017 Strategic Program Development

Program objectives may be more fully served through certain strategic adjustments. For example, the County’s SoCalREN Administrator is working to assess whether more robust outcomes can be realized through leveraging of this Program with the Workforce Development Program, to expand the eligible building stock for Low-Income Multifamily Buildings, and to cross-leverage this offering with other federal and local incentive and grant programs focused on Disadvantaged Communities. In addition, the SoCalREN Administrator will seek opportunities to supplement County affordable housing initiatives with options under this Program to promote healthy homes and reduced utility costs.

Annual Budget

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Contractors Trained

- 25 Attendees at the Community Development Block Grant county-wide rehabilitation program
- 32,000 Prospective Applicants Educated on the Program
- 538 Contractors Trained
SoCalREN promotes alternative financing mechanisms, including Commercial PACE (Property Assessed Clean Energy), to stimulate a wider, regional footprint for energy and water efficiency, renewable energy, automated building performance systems, and other measures in the commercial building sector. PACE provides a source of financing, secured by bonds, which is payable over the useful life of the building energy improvements, as a separate line item on Los Angeles County property tax rolls.

In 2017, the OEE commissioned an independent assessment of the County’s Commercial PACE Program, together with a comparative analysis against state and national Commercial PACE Programs. These efforts focus on remedies and program design cures with the potential to invigorate Commercial PACE as a retrofit financing option and to capture presently stranded energy savings opportunities.

The Commercial PACE Program serves a class of eligible properties which includes commercial, industrial, agricultural, non-profit, and multifamily buildings with five or more units. Commercial PACE is available in 87 out of 88 incorporated cities, and all unincorporated regions in the County of Los Angeles.

Since active implementation began in 2013, the Commercial PACE mechanism has been used to fund nearly $25 Million in comprehensive building retrofits. Notwithstanding strong early interest and uptake, Commercial PACE Programs in the County and across the nation yield modest outcomes. In general, the current County of Los Angeles Commercial PACE option is not competitive compared with other available forms of financing for commercial building owners, and the process is overly-complex and time-consuming. The model does, however, have clear advantages. For example, the PACE assessment is not carried on the books as debt, but as an operating expense, and can mitigate the split incentive tension in commercial and residential rental properties.1

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1 The “split incentive” challenge arises where building owners are responsible for the cost of building improvements that benefit commercial and residential customers (such as energy efficiency retrofits), but the tenants uniquely benefit, e.g., in the form of lower energy costs.
2017 Strategic Program Development

During 2017, the OEE worked to identify and mitigate program and market barriers, and also launched efforts to develop deeper, more active regional relationships that might serve as a demonstration model for neutralizing defects in the conventional Commercial PACE model:

1. The County commissioned a third-party assessment of the Commercial PACE Program, with the goal of identifying administrative, programmatic, financial, marketing, contractor, and technical barriers that prevent more dynamic uptake. In brief, stronger uptake of the Program is hindered primarily by high transaction and debt-service costs, an overly-bureaucratic and time-consuming process, and disproportionate impact on operating costs without clear identification of counter-balance benefits.

2. Recommendations have been developed, beginning with organizational alignment, to mitigate or overcome barriers. These include folding the County’s community-facing energy programs (including PACE) under a joint powers authority, streamlining and/or removing direct bonding obligations, building specialized training and resources for participating contractors, and enrolling PACE Projects on an aggregation (rather than a single project) basis.

3. The SoCalREN expanded the regional relationships pilot (with the San Gabriel Valley Council of Governments) to engage more jurisdictions. Direct outreach was performed to specific end-user groups (e.g., commercial building owners and managers, and investment/banking interests) along with leveraging parallel programs administered by the OEE.

Assuming implementation of the above recommendations, as well as other design adjustments and cross-leveraging opportunities, goals for 2018 include:

- Create a resources library and toolkit for commercial contractors
- Establish alternative external bonding options
- Develop an aggregation subscription system
- Launch mid-stream optimization offerings (joint procurement of equipment to gain economies-of-scale discounts)
- Cross-cut data collection with the AB 802 and U.S. Department of Energy benchmarking/market project
- Work with lending institutions to pilot PACE as part of the commercial capital stack, focused on energy efficiency retrofits and retrocommissioning
CONTRACTOR OUTREACH AND TRAINING PROGRAM

### Annual Budget

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### Contractors Trained

- 129 Contractors Trained

### One-on-One Training Sessions

- 61 One-on-One Training Sessions

### Energy Efficiency Field Kits Distributed to Contractors

- 490 Energy Efficiency Field Kits

The Contractor Outreach and Training Program facilitates contractor professional development through enrollment and participation in the SoCalREN portfolio of programs with a comprehensive menu of training opportunities supported by technical and marketing resources.

The SoCalREN Contractor Outreach and Training Program was developed out of pre-2013 County projects financed under the U.S. Department of Energy’s Better Buildings Program and the Energy Efficiency Community Block Grant Program, and was subsequently expanded to integrate contractor training and enrollment in the CPUC’s Energy Upgrade California Home Upgrade program.

In addition to training and program recruitment, the SoCalREN Contractor slate includes marketing and outreach support—from promotions, collateral, and Program data and information, to training on energy efficiency messaging and outreach to the public. The Program includes an HVAC component, which offers project incentives, contractor events and networking, special marketing channels and resources for contractors, specialized training, and distribution of Energy Efficiency Field Kits to Participating Contractors. In addition, the SoCalREN hosts training and mentoring opportunities that support contractors in broadening their business models to include other energy offerings such as PACE.

SoCalREN maintains a strong network of Energy Upgrade California Home Upgrade Participating Contractors registered through the SoCalREN Contractor Portal. Account Managers and Administrators provided education on energy efficiency upgrades so that contractors can deliver clear, actionable information to customers. Contractor outreach and training supports each single-family program, and every program supports the same contractor pool.

Throughout 2017, the County’s SoCalREN Program Administrator engaged a number of local/regional workforce development, training, and economic, jobs, and technical stimulus institutions to facilitate the transition of Program funds to performance measures and strategies that are measurable and provide improved results.
REGIONAL ENERGY PROJECT AND CLIMATE/ENERGY PLANNING PROGRAM

**Annual Budget**

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**Aggregated utility consumption data by:**

- **Neighborhoods**: 335
- **Cities**: 225
- **Councils of Governments**: 6
- **Counties**: 7

**Processed dataset** of more than 27,000,000 addresses

**Database server** that hosts and processes more than 1 billion records

The SoCalREN Portfolio originated and funded a unique and innovative software system—the Los Angeles Energy Atlas—that not only measures energy use and intensity, but is also capable of downscaling from County to neighborhood levels. The Energy Atlas is also designed to cross-link with other information systems to produce energy profiles that support targeted, effective energy efficiency strategies and programs, performance over time, and reliable analysis and reporting.

The Regional Energy Project and Climate/Energy Planning Program was initially developed through the County’s ARRA-funded energy programs and formally launched under the SoCalREN’s original 2013-2014 Energy Efficiency Portfolio (filed August 2012) in a collaboration with the California Center for Sustainable Communities (CCSC) of the University of California, Los Angeles (UCLA). After two years of data collection and input, the Program produced the Los Angeles Energy Atlas, one of the largest disaggregated sources of building energy data available in the nation.

This innovative software resource was designed to incorporate a wide number of geographic and political data in order to better understand relationships and human drivers of energy use and energy efficiency adoption.

Currently, the Energy Atlas tracks approximately 35 million accounts, mapping energy consumption via kWh, therms, BTUs, as well as associated greenhouse gas (GHG) emissions. In addition to the SoCalREN, users include:

- Individual cities, districts, and offices
- Regional Assembly and Senate offices
- Private-sector consultants
- Academic institutions
- State agencies such as the Strategic Growth Council and the California Energy Commission

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- Private-sector consultants
- Academic institutions
- State agencies such as the Strategic Growth Council and the California Energy Commission
• The Governor’s Office of Planning and Research
• Councils of Governments (COGs)
• Transportation and congestion management districts
• The Air Quality Management District (AQMD)
• Non-profit institutions

The interactive website currently displays building energy consumption at the neighborhood, city, COG, and Los Angeles County levels from 2006–2010. In 2016, the CCSC expanded Energy Atlas coverage beyond Los Angeles County to include six additional counties in Southern California, and also updated years of available energy data from 2011–2014. We are currently working to update and standardize reporting protocols across the full service territory through 2015.

Customer-level energy consumption data links to parcel data, census information, Los Angeles County rooftop solar potential data, CalEnviroScreen 2.0, and other relevant data sources. The Energy Atlas displays energy consumption and related characteristics across time and geography to better enable decision makers and stakeholders to view energy consumption and conservation strategies. The Energy Atlas includes a map display of Los Angeles County energy consumption, profiles of energy consumption based on geography, analysis, and strategies for conservation and efficiency. Energy Atlas data also contributes to ongoing research efforts spanning utility grid vulnerabilities, questions of energy efficiency, and advanced energy communities within the County of Los Angeles.

Based on the diverse applications, utility, and reliability of the Energy Atlas, a coalition of local government stakeholders presented a statewide administration model application to the CPUC, predicated upon expansion of the Energy Atlas to capture energy consumption data across the State. The SoCalIREN is also working with CCSC to develop a broader 2.0 data field repository that can be used to project and assess impacts of geographic and land development profiles, electrification, and energy efficiency resiliency planning. Among other uses, Energy Atlas 2.0 data diversification and analytics offer a support-spectrum—primarily to the energy sector but also potentially serving cross-cutting sectors—to the County’s Regional Sustainability Master Plan.
SERVING

ENERGY

EFFICIENCY

REDUCING

ENERGY USE

UPGRADED

GOVERNMENT BUILDINGS

TRAINING

AND JOBS

SUCCESS

STORIES

SERVING

DISADVANTAGED

COMMUNITIES

ENERGY

MANAGEMENT

SYSTEMS

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ENERGY USE
SUCCESS STORY: CITY OF CLAREMONT

Established 1887
Incorporated 1907
Population 36,059
Area (Sq. Mi.) 14.14
County of Los Angeles Supervisor District 1st District

Collectively, the projects completed to date have resulted in more than:

$40,000+ Annual Cost Savings
380,000 kWh Annual Energy Savings
90+ metric tons of CO₂ (GHG reduction), which is equivalent to taking 20 cars off the road

The City of Claremont enrolled in the SoCalREN Public Agency Program in late 2014, acknowledging a commitment to work with strategic partners to achieve energy reduction targets outlined in their City Sustainability Plan. Having already established a vision for community leadership, the City was ready to take action to identify and implement energy efficiency projects. The SoCalREN provided the City with the tools and expertise needed to get the job done.

Just this year, the City of Claremont completed two efficiency projects leveraging the SoCalREN’s services, including:

• A city-wide LED streetlight retrofit
• Exterior lighting retrofits at several high-use community facilities such as the Alexander Hughes Community Center, Youth Activity Center, Taylor Reception Hall, Police Department, and Metrolink Station (pictured below)

For these and all energy efficiency projects the City of Claremont will enjoy enhanced utility incentives for energy savings achieved, due to their participation in the San Gabriel Valley Energy Wise Partnership. The dedicated project management and technical expertise provided by the SoCalREN have complemented Partnership offerings to drive implementation of smart energy strategies, and the results are winning praise from city staff and community members alike.

According to the project leads within the City, improved nighttime visibility is a widely recognized benefit by residents in areas where LED streetlight retrofits have occurred. Staff working late and early shifts at multiple City facilities have also reported positive feedback after completion of outdoor area lighting upgrades.

The City will enjoy additional operational benefits from improved illumination, such as greater reliability from LED technologies and reduced maintenance. For years to come, completed projects will continue to help the City save on energy costs while progressing toward its greenhouse gas reduction goal. The City team has commented that these lighting retrofits have paved the way for more complex projects, and they would like the SoCalREN’s assistance to conduct deeper evaluation of individual facilities, including City Hall, to identify additional energy saving opportunities.
SUCCESS STORY: CITY OF CULVER CITY

Collectively, the projects completed to date have resulted in more than:

- **$140,000+** Annual Cost Savings
- **27** Jobs Created
- **1 Million kWh** Annual Energy Savings
- **32,800** Therms Annual Savings
- **300+** metric tons of CO₂ (GHG reduction), which is equivalent to taking **65** cars off the road

We have avoided **300+** metric tons of CO₂ (GHG reduction), which is equivalent to taking **65** cars off the road.

As one of the first agencies to enroll in the SoCalREN Public Agency Program in 2013, the City of Culver City has shown consistent leadership and a commitment to energy efficiency by implementing a variety of lighting and mechanical projects.

The City has completed 14 projects to date including:

- A boiler replacement at The Culver City Municipal Plunge (aquatic center)
- LED lighting retrofits and the installation of an Energy Management System (EMS) at the Police Department, City Hall, Veterans Memorial building, Senior Center, and Transportation Center
- Optimization of HVAC equipment at the Police Department and City Hall
- More than 1,400 streetlights have been replaced throughout the City

The EMS is designed to reduce energy consumption and improve reliability through optimization of heating and cooling systems at these facilities. This project has been highly anticipated by City maintenance staff who, in the past, were constantly running to various buildings in an attempt to monitor and control HVAC equipment. They can now adjust systems remotely through a central dashboard.

The City has further demonstrated leadership through participation in the Westside Cities Partnership, which earns them additional incentive payments through utility programs for energy savings achieved. Looking to the future, the City is taking a holistic approach to developing their energy efficiency strategy.

Through action, the City has shown commitment to being environmental stewards of their community. The SoCalREN is proud to provide continued support to their dedicated team.

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Santa Monica has long championed innovative sustainable leadership, adopting aggressive goals for reducing energy and water resource consumption and increasing efficiency, as well as increasing citywide use of renewable energy and alternative fuels. Since the City’s enrollment in the SoCalREN in 2013, the Program has worked with the City to support their aggressive energy reduction goals through multiple energy efficiency projects.

The projects identified through the technical services offered by the SoCalREN include:

- Mechanical project optimizing parking garage exhaust system at the Ken Edwards Center
- Interior LED lighting retrofit at the Big Blue Bus facility
- City-wide LED street lighting retrofits
- Underwater and outdoor lighting improvements at the Santa Monica Swim Center
- LED lighting upgrade projects currently planned for beach parking lots, various public parking structures, and public parks

By implementing these projects, the City is benefiting through reduced maintenance and operating costs. In addition, increasing the quality of street, parking and park lighting can lead to improved safety and reduction in crime.

The savings generated from projects implemented by the City were instrumental in assisting Santa Monica in achieving the Platinum level within the Westside Cities Energy Leader Partnership. Santa Monica was recognized for reducing overall municipal energy use by 20% since 2006. On the horizon, the City has the goal of retrofitting their library to achieve zero net energy, and is also currently pursuing 12 additional lighting projects at beaches, parks, and parking structures, with expected annual savings of 1.1 million kWh and nearly $150,000 in energy costs.

Since enrolling in the Program and completing several projects, the community has reached out and expressed their positive feedback relating to the improved lighting quality provided by the new LED street light fixtures. Community members expressed that they can “see more” and feel safer due to the quality of light from new fixtures.

Collectively, the projects completed to date have resulted in more than:

- $166,420 Annual Cost Savings
- 10 Jobs Created
- 1.5 Million kWh Annual Energy Savings
- We have avoided 400 metric tons of CO₂ (GHG reduction), which is equivalent to taking 86 cars off the road

## Success Story: City of Santa Monica

Established 1769
Incorporated 1886
Population 92,478
Area (Sq. Mi.) 8.42
County of Los Angeles Supervisor District 3rd District

Santa Monica has long championed innovative sustainable leadership, adopting aggressive goals for reducing energy and water resource consumption and increasing efficiency, as well as increasing citywide use of renewable energy and alternative fuels. Since the City’s enrollment in the SoCalREN in 2013, the Program has worked with the City to support their aggressive energy reduction goals through multiple energy efficiency projects.

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SUCCESS STORY:
CITY OF LONG BEACH

Collectively, the projects completed to date have resulted in more than:

- 125 Jobs Created
- $1.2 million Annual Cost Savings
- 8.6 Million kWh Annual Energy Savings
- We will save $15 Million over the life of the street lights
- We have avoided 2,000 metric tons of CO₂ (GHG reduction), which is equivalent to taking 400 cars off the road

Since enrolling in the SoCalREN Public Agency Program in 2013, the City of Long Beach has taken great strides to move toward energy-efficient solutions that are more resilient and ultimately better for the health of the economy and its residents.

The City recognizes that clean energy and energy efficiency not only mean reducing energy consumption, but also protecting the environment, fostering a safe community, saving money, and improving public health. Working in partnership with the SoCalREN, Long Beach has identified significant opportunities for reducing energy use by focusing on street, parking lot, and park lighting at several facilities. Impressively, the street lighting project is the fourth largest street lighting retrofit on the West Coast.

- Removal of High Pressure Sodium (HPS) streetlights and replacement with LEDs
- Updates to a total of more than 25,000 street lights throughout the City
- Improved lighting around the City and at key locations such as the Airport Parking and multiple beach parking lots
- Upgrades to both standard cobra head streetlights and decorative fixtures

A small portion of the street lights were funded by a Long Beach Port Mitigation Grant, and the remaining streetlights were funded by incentives and 0% interest loans from the local electric utility. Through the City’s participation in the Energy Leader Partnership, they were able to secure enhanced incentives to cover a significant portion of the project cost.

The street light projects have contributed to the City of Long Beach’s goal of reducing greenhouse gas emissions, but have also played a major part in improving overall community safety. The Long Beach Police Department will benefit from the ability to install adjustable controls on the new LED lights, unlike the old high pressure sodium lights. This will allow the Department to manage and increase the lighting remotely as needed. This, in turn, will increase the effectiveness of the Police Department and contribute to public safety.
SUCCESS STORY: CITY OF PALMDALE

Established 1886
Incorporated 1962
Population 157,356
Area (Sq. Mi.) 106.21
County of Los Angeles Supervisor District 5th District

Collectively, the projects completed to date have resulted in more than:

$151,759 Annual Cost Savings
29% Energy Reduction
1.3 Million kWh Annual Energy Savings
20 Jobs Created

We have avoided 325 metric tons of CO₂ (GHG reduction), which is equivalent to taking 69 cars off the road.

The City of Palmdale has made significant progress in its quest to become more energy-efficient since joining SoCalREN four years ago. The positive impact of its energy efficiency work with the Public Agency Program cannot be understated, and has benefited the City and community in multiple aspects including annual energy cost savings, improved outdoor environment and health, and increased safety.

The City has completed four projects:

- A two-phase LED street lighting retrofit project
- An exterior lighting retrofit project at three parks
- A mechanical project at six community swimming pools
- An interior lighting project at four facilities

Each project benefits Palmdale in a unique way. The park lighting retrofit project created a safer climate for park visitors and the lighting project at four facilities improved lighting quality for indoor users.

The street lighting upgrade project provided immediate energy and cost savings. In fact, the City was so pleased that it will be working with the Program to upgrade an additional 17,000 street lights, leveraging assistance to apply for and track incentives and On-Bill Financing, in addition to project management support.

Thanks to new variable frequency drives (VFDs) installed as part of the mechanical project at six community swimming pools, the City was able to develop a controls strategy, allowing it to meet required water turnover rates for public pools while still realizing energy savings.

Throughout its experience with the Program, the City has commented that it sees the project team as an extension of its staff. This successful collaboration has caught attention beyond the City, as Palmdale was recently awarded the 2017 “Best Use of Technology” accolade from the High Desert Branch of the American Public Works Association (APWA) for the lighting and mechanical projects described above.

"With our limited staff, the projects wouldn’t have happened without the SoCalREN Public Agency Program’s help."  
Ben Lucha, Environmental and Technology Manager, City of Palmdale
SUCCESS STORY: CITY OF SANTA BARBARA

Established 1782

Incorporated 1850

Population 91,930

Area (Sq. Mi.) 19.49

Location County of Santa Barbara

Collectively, the projects completed to date have resulted in more than:

$80,000 Annual Cost Savings

700,000 kWh Annual Energy Savings

We have avoided 512 metric tons of CO₂ (GHG reduction), which is equivalent to taking 110 cars off the road.

The City of Santa Barbara enrolled in the SoCalREN Public Agency Program in June of 2014. Since this time, the City has been able to steadily increase both the number and the complexity of energy efficiency projects.

After implementing a series of smaller lighting projects as a proof of concept, the City enthusiastically moved forward with several complex parking garage and street lighting projects that have resulted in tremendous energy and cost savings. Building upon this success, the City has agreed to expedite existing efficiency plans and engage new departments in an effort to advance toward aggressive energy saving goals recently set by the City Council.

During 2017, the City completed eight projects that include:

- A variety of street lighting updates
- Lighting retrofits at the Santa Barbara Municipal Tennis Center
- Parking garage lighting retrofits at Downtown/Civic Center
- Exterior lighting retrofit at the Cater Municipal Water Treatment Plant

As the Program’s partnership with the agency continues to expand, additional support for the City’s water and community services departments, specifically targeting water system pumping and other operational efficiencies, are currently being targeted for the near future.

Since enrolling in SoCalREN, the City of Santa Barbara has implemented projects that have provided the community with safer street lighting, better living conditions, and improved operations and maintenance. The City has found great value in participating in the SoCalREN Public Agency Program which is easily identifiable by their committed actions toward being environmental stewards of their community.
SUCCESS STORY:
CONEJO VALLEY UNIFIED SCHOOL DISTRICT

Established 1974
Location County of Ventura
Superintendent Mark W. McLaughlin, Ed.D.
Students 18,900
District Offices Thousand Oaks

Collectively, the projects completed to date have resulted in more than:

$437,500 Annual Cost Savings
55 Jobs Created
3.6 Million kWh Annual Energy Savings

We have avoided 945 metric tons of CO2 (GHG reduction), which is equivalent to taking 202 cars off the road

After enrolling in late 2013, the Conejo Valley Unified School District (CVUSD) worked alongside the SoCalREN Public Agency Program to identify and implement several energy efficiency projects.

CVUSD is benefiting from the positive impacts these energy efficiency projects have had on their facilities, as well as the people who inhabit them—including the nearly 19,000 students currently enrolled. By implementing efficiency upgrades, the District models smart energy behaviors while creating a learning environment where students and teachers can thrive.

CVUSD relied on the expertise of SoCalREN to help them identify qualifying measures and secure funding allocated by Proposition 39, a State program to fund energy efficiency improvements in California schools. CVUSD has chosen to pursue an even broader efficiency goal, implementing projects beyond their Proposition 39 allocation. Completed and planned projects throughout the District include:

• A range of mechanical and lighting projects at five different CVUSD campuses
• Central plant replacements at Los Cerritos Middle School and Thousand Oaks High School

At the Middle School, the 45-year-old system is inefficient and unable to meet the comfort needs of students and staff. Most system components will be replaced, including the boilers, chillers, and energy management system (EMS). The end result will be a more efficient system that reduces the need for maintenance and emergency repairs, and more comfortable buildings that provide a better learning environment.

The District has commented that the Program has assisted in ways they never imagined possible.

"[T]hey have exceeded all my expectations and then some. They have become not only an integral component of our energy management team, but an extremely valuable asset to the school district as well. Their level of expertise and professionalism has been unsurpassed ... They have done significant amounts of work on our behalf that has resulted in substantial savings of both energy and money."

Rick Freed, Energy Educator/Manager, CVUSD
Cucamonga Valley Water District (CVWD) has been able to achieve significant levels of energy savings since enrolling with the SoCalREN Public Agency Program in October of 2014. CVWD is a retail water provider serving City of Rancho Cucamonga, portions of the cities of Upland, Ontario and Fontana, and some unincorporated areas of San Bernardino County.

In taking action to complete a total of nine energy efficiency projects, the resulting environmental impacts are an influential catalyst that inspires other similar agencies to take action to move their communities into a greener and healthier direction. Through SoCalREN, CVWD is serving their community with shared benefits such as greater service reliability, reduced energy costs, and reduced greenhouse gas emissions.

CVWD accomplished an unparalleled level of energy savings and significantly reduced operational budgets by leveraging services through a partnership created between the SoCalREN and Water Infrastructure System Efficiency (WISETM), a Southern California Edison third-party program. By leveraging multiple programs to incorporate energy efficiency improvements within their facilities, the upgrades were completed in only nine months from start to finish.

The projects included water pumping upgrades and sequencing optimization of 47 booster pumps and nine well pumps located throughout the CVWD water distribution system.

The procurement and construction approach used in the pump upgrades project is now being replicated at other water agencies with similar projects with support from the SoCalREN.

“...The SoCalREN Public Agency Program provided engineering services, project management, and the resources needed to streamline CVWD’s energy efficiency projects from start to finish...”

Mike Maestas, Water Production Manager, CVWD
ROLLING PORTFOLIO KEY OBJECTIVES

The SoCalREN used the 2017 calendar year to make administrative, programmatic, and operational changes designed to reform the Portfolio toward aggressive goals and energy savings.

As earlier noted, we phased out programs and program elements that had either fully realized objectives or, in the alternative, did not demonstrate credible potential to reach certain goals. In addition, we fundamentally changed the administration and management of the Portfolio, even to the extent of releasing an implementer of several programs. The County’s Office of Energy + Environment has taken a direct role in day-to-day oversight and direction, and now works closely with productive and effective implementers. Together with these high-performing implementers, and supported by deeper collaboration with the incumbent regional Investor-Owned Utilities (Southern California Edison and SoCalGas), the Portfolio has realized geometric improvement and delivery.

Based on positive outcomes from its 2017 pivot to a performance-based Portfolio, the SoCalREN has developed a number of additional (but not exclusive or exhaustive) strategies to further establish it as a reliable, inventive, generative and cost-effective Program Administrator. The SoCalREN is determined to meet the rigor and maturity necessary to attain permanent Program Administrator status. To this end, the SoCalREN has mapped a number of 2018 Objectives and Strategies:

Objectives
Subject to final CPUC approval of its Business Plan and implementation proposals, in 2018 the SoCalREN will:

- Execute additional improvements to the Multifamily Program, to induce even greater productivity and return in energy savings
- Pilot model(s) that address market barriers in the Single-Family sector, including funding mechanisms
- Engage strategies (e.g., funding mechanisms, outreach, resource development) to expand whole-building retrofits among government agency facilities and sites
- Expand training and education—especially within underserved communities—to better reflect the integrated grid now under proceeding at the CPUC, i.e., integrating energy efficiency, renewables, storage, electrification, building analytics, and assessments
- Reshape and rework conventional approaches to Marketing, Education, and Outreach from awareness-building programs to market identification, market indicators, and calls-to-action
- Continue and expand leveraged funds and efforts, with a focus on Disadvantaged Communities and healthy housing
- Coordinate with other Energy-Sector Administrators, such as Los Angeles Department of Water and Power (LADWP), and regional Community Choice Energy (CCE) Authorities
- Continue active representation in regulatory and legislative proceedings
Programmatic and Operational Strategies

- Alternative scenario-building with the CPUC
- Longer-term contracts and resolution of gaps in contracting
- Greater emphasis on three-dimensional integration
- Cross-cutting within the Portfolio
- Cross-leveraging with other partners (CCE, LADWP, incumbent utilities)
- Increased funding leverage (e.g., other State and national agencies)
- Continued process toward streamlined programs
- Shift to third-party program innovative solicitations (such as Requests for Abstracts)
- Increased emphasis on pay-for-performance programs
- Expanded relationships with relevant technical and professional associations
- Emphasis on strong new brand
- Cohesive website for SoCalREN in 2018—all programs in one place for improved customer experience
- Streamlined brand applied to all programs
- Improved social media presence in 2018—all programs, not just residential
- Restructure marketing plans to define indicators, identify target customers, and align incentives with end-user priorities
## Table 1. Electricity and Natural Gas Savings and Demand Reduction (Gross)

<table>
<thead>
<tr>
<th></th>
<th>2016 Installed Savings(^1)</th>
<th>CPUC 2016 Adopted Goals (D.15-10-028)</th>
<th>% of Goals (2016)</th>
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<tr>
<td><strong>2016 Energy Savings (GWh) – Annual</strong></td>
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</tr>
<tr>
<td>PG&amp;E</td>
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<tr>
<td>SCG</td>
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<tr>
<td>MCE</td>
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<td></td>
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<tr>
<td>BayREN</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>SoCalREN</td>
<td>0.867</td>
<td>4.622</td>
<td>19%</td>
</tr>
<tr>
<td><strong>TOTAL Energy Savings (GWh) – Annual</strong></td>
<td>0.867</td>
<td>4.622</td>
<td>19%</td>
</tr>
<tr>
<td>**2016 Energy Savings (GWh) – Lifecycle(^2)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>PG&amp;E</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>SCE</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>SDG&amp;E</td>
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<td>BayREN</td>
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<tr>
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<td><strong>TOTAL Energy Savings (GWh) – Lifecycle</strong></td>
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<td><strong>2016 Natural Gas Savings (MMth) – Annual</strong></td>
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<tr>
<td>BayREN</td>
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<tr>
<td>SoCalREN</td>
<td>0.059</td>
<td>0.230</td>
<td>26%</td>
</tr>
<tr>
<td><strong>TOTAL Natural Gas Savings (MMth) – Annual</strong></td>
<td>0.059</td>
<td>0.230</td>
<td>26%</td>
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<tr>
<td><strong>2016 Peak Demand savings (MW)</strong></td>
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<tr>
<td>PG&amp;E</td>
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<tr>
<td>BayREN</td>
<td></td>
<td></td>
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<tr>
<td>SoCalREN</td>
<td>0.921</td>
<td>3.536</td>
<td>26%</td>
</tr>
<tr>
<td><strong>TOTAL Peak Demand savings (MW)</strong></td>
<td>0.921</td>
<td>3.536</td>
<td>26%</td>
</tr>
</tbody>
</table>

\(^1\) Installed savings are from two resource programs: Multi-Family and Single-Family.

\(^2\) Lifecycle goals not given in D. 15-10-028
Table 3. 2016 Expenditures (including expenditures on past cycle commitments paid in 2016)

### 2016 Expenditures[1]

<table>
<thead>
<tr>
<th>Administrative Cost</th>
<th>Direct Implementation</th>
<th>PA Administered ME&amp;O (outside the SW ME&amp;O activities)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Portfolio</td>
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<tr>
<td>Non-Incentive</td>
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<td></td>
</tr>
<tr>
<td>OBF/Revolving Loan Pool*</td>
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<tr>
<td>Total Expenditures</td>
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</tr>
<tr>
<td>*Budget dollars outside Portfolio Total.</td>
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---

**Administrative Cost**

**Direct Implementation Incentives & Rebates**

**Total Expenditures**

---

**IOU Programs**

- Local Government Programs (Partnership Programs)
- Third Party Programs (Competition Bid Program)
- OBF/Revolving Loan Pool*
- Energy Savings Assistance Program (ESA)*

**Table 3. 2016 Expenditures**

Administrator will settle final 2016 expenditures after the Annual Report's due date.

---

[1] Not used 2016 expenditures, Los Angeles County and in PUC approved fixed-administrative costs and costs from 2015's expenditures after the Annual Report's due date.

---

**Direct Implementation Incentives & Rebates**

**PA Administered ME&O (outside the SW ME&O activities)**

**Total Expenditures**

---

**IOU Programs**

- Local Government Programs (Partnership Programs)
- Third Party Programs (Competition Bid Program)
- OBF/Revolving Loan Pool*
- Energy Savings Assistance Program (ESA)*

**Table 3. 2016 Expenditures**

Administrator will settle final 2016 expenditures after the Annual Report's due date.

---

[1] Not used 2016 expenditures, Los Angeles County and in PUC approved fixed-administrative costs and costs from 2015's expenditures after the Annual Report's due date.

---

**Direct Implementation Incentives & Rebates**

**PA Administered ME&O (outside the SW ME&O activities)**

**Total Expenditures**

---

**IOU Programs**

- Local Government Programs (Partnership Programs)
- Third Party Programs (Competition Bid Program)
- OBF/Revolving Loan Pool*
- Energy Savings Assistance Program (ESA)*

**Table 3. 2016 Expenditures**

Administrator will settle final 2016 expenditures after the Annual Report's due date.

---

[1] Not used 2016 expenditures, Los Angeles County and in PUC approved fixed-administrative costs and costs from 2015's expenditures after the Annual Report's due date.
# APPENDICES: 2017 Q1 REPORT

## 2016 IOU Energy Efficiency Cap and Target Expenditure Performance

### Expenditures

<table>
<thead>
<tr>
<th>Budget Category</th>
<th>IOU Administrative Cap Exempt Programs</th>
<th>IOU Administrative Cap Exempt Programs</th>
<th>IOU Budget</th>
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</thead>
<tbody>
<tr>
<td>Administrative Costs</td>
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<td>492,928</td>
<td>$2,359,603</td>
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<tr>
<td>IOU</td>
<td>$492,928</td>
<td>492,928</td>
<td>$2,359,603</td>
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<tr>
<td>Non-IOU</td>
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<td>14,316</td>
<td>$14,316</td>
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<tr>
<td>IOU Administrative Cap Exempt Programs</td>
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<td>$127,889</td>
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<td>$3,196,169</td>
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<td>$7,637,480</td>
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<td>Direct Implementation Target Exempt Programs</td>
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<td>EMV Costs (Investor Owned Utilities &amp; Energy Division)</td>
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<tr>
<td>OBF Loan Pool</td>
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<tr>
<td>Total</td>
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<td>4,062,823</td>
<td>4,555,751</td>
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### Cap & Target Performance

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<tr>
<td>Non-IOU</td>
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<td>8.0%</td>
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<tr>
<td>IOU Administrative Cap Exempt Programs</td>
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<tr>
<td>Marketing and Outreach Costs</td>
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<tr>
<td>Marketing &amp; Outreach</td>
<td>8.0%</td>
<td>8.0%</td>
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<tr>
<td>Statewide Marketing &amp; Outreach</td>
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<td>Direct Implementation Costs</td>
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<tr>
<td>Direct Implementation Target Exempt Programs</td>
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<td>EMV Costs (Investor Owned Utilities &amp; Energy Division)</td>
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<td>OBF Loan Pool</td>
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</tr>
<tr>
<td>Total</td>
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</tbody>
</table>

### Notes

1. Includes energy efficiency costs authorized in D.12-11-015; does not include costs recovered in IOU General Rate Cases.
2. Does not include funds recovered in IOU General Rate Cases.
3. The 2013-2014 BE budget was authorized in D.12-11-015, the Statewide Marketing & Outreach budget was authorized in D.13-12-030.
4. The Third-Party and Partnership administrative cost target is calculated as a percentage of total Third Party and Partnership expenditures (excluding EMV costs).
7. Statewide Marketing & Outreach expenditures are excluded from the Marketing and Outreach Cost target calculation.
8. Direct Implementation (Non Incentives) includes End User Rebates, Direct Install labor activity, Direct Install Materials & Services, and Upstream/Midstream rebates.
10. Per PUC does not apply to SoCalREN.
11. Per PUC does not apply to IOU Administrators.
12. The 2013-2014 BE budget was authorized in D.12-11-015, the Statewide Marketing & Outreach budget was authorized in D.13-12-030.
13. Does not include costs incurred by RENs or CCAs.
14. The 2013-2014 EE budget was authorized in D.12-11-015, the Statewide Marketing & Outreach budget was authorized in D.13-12-030.
16. Statewide Marketing & Outreach expenditures are excluded from the Marketing and Outreach Cost target calculation.
17. Direct Implementation (Non Incentives) includes End User Rebates, Direct Install labor activity, Direct Install Materials & Services, and Other Disbursements.
19. Per PUC does not apply to SoCalREN.
20. Per PUC does not apply to IOU Administrators.
APPENDICES:
2017 Q2 REPORT

2017 IOU Energy Efficiency Cap and Target Expenditure Performance1,2

<table>
<thead>
<tr>
<th>Expenditures</th>
<th>Budget Category</th>
<th>IOU</th>
<th>Total Portfolio</th>
<th>Total Funded</th>
<th>Total Portfolio</th>
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<tr>
<td>IOU Administrative Cap Exempt Programs</td>
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<tr>
<td>Marketing and Outreach Costs</td>
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<td>Statewide Marketing &amp; Outreach 6</td>
<td>3,303,435</td>
<td>$</td>
<td>$</td>
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<td>$</td>
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<tr>
<td>Direct Implementation Costs</td>
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<td>10.8% 18.8%</td>
<td>40.4% 20.0%</td>
<td>31.0% 10.0%</td>
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</tr>
<tr>
<td>Direct Implementation (Non Incentives)</td>
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<td>31.0% 10.0%</td>
<td>31.0% 10.0%</td>
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<tr>
<td>Direct Implementation Target Exempt Programs</td>
<td>10.8% 18.8%</td>
<td>10.8% 18.8%</td>
<td>40.4% 20.0%</td>
<td>31.0% 10.0%</td>
<td></td>
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<tr>
<td>EM&amp;V Costs (Investor Owned Utilities &amp; Energy Division)</td>
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<td>$</td>
<td>$</td>
<td>$</td>
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</tr>
<tr>
<td>OB Loan Pool</td>
<td>48.4% 28.8%</td>
<td>48.4% 28.8%</td>
<td>48.4% 28.8%</td>
<td>48.4% 28.8%</td>
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<tr>
<td>Total</td>
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<td>$</td>
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Notes:
1. Includes energy efficiency costs authorized to 12/31/17. Does not include costs recovered in IOU General Rate Cases.
2. The 2013-2014 BE budget was authorized to 12/31/13. The Statewide Marketing & Outreach budget was authorized to 12/31/13.
3. The Third-Party and Partnership administration and integration is calculated as a percentage of total Third-Party and Partnership expenditures (excluding O&G support).
5. Budget is estimated.
6. Statewide Marketing & Outreach expenditures are excluded from the Marketing and Outreach Cost target calculation.
8. Direct Implementation (Incentives and Rebates) include: End User Rebates, Direct Install labor activity, Direct Install Materials.
10. Indirect Marketing & Outreach expenditures are included in the Marketing and Outreach Cost target calculation.
12. Direct Implementation (Incentives and Rebates) include: End User Rebates, Direct Install labor activity, Direct Install Materials & Services.
14. Direct Implementation (Total) include: Direct Implementation (Incentives and Rebates) and Direct Implementation (Non Incentives).
15. OB Loan Pool.
16. Per IOU 11-110-03 pg 10. (1) Does not apply to non-energy efficiency expenditures (Administrative and Marketing and Outreach) in this Issue.
17. 10.8% 18.8% etc. does not apply to CalSPREE (IOU).
18. 527,526 $ etc. does not apply to CalSPREE (IOU).
19. 10.8% 18.8% etc. does not apply to non-energy efficiency expenditures (Administrative and Marketing and Outreach) in this Issue.
20. 527,526 $ etc. does not apply to CalSPREE (IOU).
### 2017 Energy Efficiency Fund Shift Report – Second Quarter

#### Program Budgets & Fundshifting

<table>
<thead>
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<th>Category</th>
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<th>2017 Authorized Budget - Uncommitted</th>
<th>Fund Budge</th>
<th>Fund Budge - Total Adjustments</th>
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<th>Fund Budge - Total Unadjusted</th>
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<td>Regional Climate Action and Energy Plan</td>
<td>$395,120.00</td>
<td>$395,120.00</td>
<td>$90,939.22</td>
<td>$155,263.01</td>
<td>$246,202.00</td>
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<td>Public Agency Revolving Loan Fund</td>
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<td>$236,000.00</td>
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<td>$138,735.00</td>
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<tr>
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<td>$253,519.33</td>
<td>$7,828.13</td>
<td>$3,566,276.19</td>
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#### Program Expenditures of Carryover Spending (Debt To Date, 6 Months Through June 30, 2017)

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<th>2017 Authorized Budget - Pre-Commitments</th>
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<tr>
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<td>$395,120.00</td>
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<tr>
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<td>Workforce Development</td>
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<td>$42,166.47</td>
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<td>$75,250.00</td>
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<td>$185,925.31</td>
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<td>$228,842.00</td>
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<tr>
<td>SCR-REC-C5</td>
<td>Regional Energy Project Tracking and Permitting (CEEPMS)</td>
<td>$138,735.00</td>
<td>$138,735.00</td>
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</tbody>
</table>
| SCR-EUC-A5 | Multifamily Incentives | $6,940,976.00 | $4,771,900.00 | $3,323,375.00 | | $253,519.33 | $7,828.13 | $3,566,276.19 | $3,827,624.00 | $4,886,728.00 | $939.29 | $112,970.00 | | | | | | }
### APPENDICES:
#### 2017 Q3 REPORT

2017 IOU Energy Efficiency Cap and Target Expenditure Projections

<table>
<thead>
<tr>
<th>Line</th>
<th>Budget Category</th>
<th>PA</th>
<th>Non-energy + Partnership</th>
<th>Total Portfolio</th>
<th>% of Target Portfolio</th>
<th>Target Expenditures Cap &amp; Target Performance</th>
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<td>PA</td>
<td>$1,562,378</td>
<td>$466,163</td>
<td>$2,048,541</td>
<td>7.9%</td>
<td>20.0%</td>
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<tr>
<td>3</td>
<td>Third Party + Partnership</td>
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<td>$38,611</td>
<td>$38,611</td>
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<td>$708,398</td>
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<td>6.6%</td>
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<td>6</td>
<td>Marketing + Outreach</td>
<td>$708,398</td>
<td>$708,398</td>
<td>$708,398</td>
<td>3.3%</td>
<td>6.6%</td>
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<td>7</td>
<td>Statewide Marketing + Outreach</td>
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<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>8</td>
<td>Direct Implementation Costs</td>
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<td>$11,605,370</td>
<td>7.2%</td>
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<td>Direct Implementation (Incentives and Rebates)</td>
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<td>$3,581,830</td>
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<td>4.0%</td>
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<td>15</td>
<td>Third Party Program (3P) and Statewide Competitively Solicited Programs</td>
<td>$262,915</td>
<td>$262,915</td>
<td>$262,915</td>
<td>6.0%</td>
<td>4.0%</td>
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</table>
### Appendix B.1 – Budget by Budget Category

<table>
<thead>
<tr>
<th>New/Existing Program #</th>
<th>Main Program Name / Sub-Program Name</th>
<th>2015 Authorized Budget</th>
<th>2015 Budget Spent</th>
<th>2016 Authorized Budget</th>
<th>2016 Budget Spent</th>
<th>2017 Proposed Budget</th>
<th>2017 Budget Spent</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCP-EUC</td>
<td>Non-energy efficiency programs only</td>
<td>$1,475,142</td>
<td>$1,292,574</td>
<td>$1,475,142</td>
<td>$1,292,574</td>
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<td>Total Marketing &amp; Outreach</td>
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<tr>
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<td>PA PROGRAM TOTAL</td>
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<td>$2,220,863</td>
<td>$2,012,275</td>
<td>$2,220,863</td>
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### Total Direct Implementation (Nonincentives or Rebates)

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<th>2015 Budget Spent</th>
<th>2016 Budget</th>
<th>2016 Budget Spent</th>
<th>2017 Proposed Budget</th>
<th>2017 Budget Spent</th>
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</thead>
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<tr>
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### Total Administrative Cost

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<th>2015 Budget</th>
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<th>2017 Proposed Budget</th>
<th>2017 Budget</th>
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<tbody>
<tr>
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<td>$1,737,507</td>
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<td>PA TOTAL with E&amp;MV</td>
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### Total Marketing & Outreach

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<th>2016 Budget</th>
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<th>2017 Proposed Budget</th>
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<td>2016 Authorized Budget</td>
<td>2017 Proposed Budget</td>
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<td>PA TOTAL, with EM&amp;V</td>
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<td>Total Direct Implementation</td>
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<td>4,490,626</td>
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<td>7,156,593</td>
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<tr>
<td>PA PROGRAM TOTAL</td>
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<td>14,173,362</td>
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<td>18,221,968</td>
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<tr>
<td>EM&amp;V</td>
<td>EM&amp;V Programs - Real</td>
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<td>2,096,719</td>
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<td>EM&amp;V</td>
<td>EM&amp;V Programs - Real</td>
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<tr>
<td>PA TOTAL, with EM&amp;V</td>
<td></td>
<td>18,221,968</td>
<td>14,173,362</td>
<td>18,221,968</td>
<td>18,221,968</td>
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<tr>
<td>New/Existing Program #</td>
<td>Max Program Name / Sub-Program Name</td>
<td>2013 Authorized Budget</td>
<td>2015 Total Budget with Commitments &amp; Fundshifts</td>
<td>2015 Total Budget with Commitments &amp; Fundshifts, Unspent 15-16</td>
<td>2015 Total Budget Spent</td>
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<tr>
<td>M&amp;H-AD</td>
<td>Multi-Building Subsidy Programs Total</td>
<td>$2,304,198</td>
<td>$2,264,175</td>
<td>$11,506,894</td>
<td>$12,972,689</td>
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<tr>
<td></td>
<td>Total Refurbishing &amp; Incentives</td>
<td>$2,001,715</td>
<td>$1,487,561</td>
<td>$1,182,165</td>
<td>$1,218,926</td>
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<td>Total Incremental Incentives for Replacements</td>
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<td>$787,614</td>
<td>$204,729</td>
<td>$453,763</td>
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<td>Total Energy Efficiency, Heating and Ventilation (Sub2A)</td>
<td>$186,917</td>
<td>$186,917</td>
<td>$128,059</td>
<td>$131,683</td>
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<tr>
<td></td>
<td>Total Energy Efficiency, Water and HVAC (Sub2B)</td>
<td>$100,000</td>
<td>$100,000</td>
<td>$52,268</td>
<td>$55,696</td>
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<tr>
<td></td>
<td>Total Energy Efficiency, Kitchen/Commercial and Training</td>
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<td>$94,935</td>
<td>$50,000</td>
<td>$50,000</td>
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<tr>
<td></td>
<td>Total Energy Efficiency, Kitchen/Commercial</td>
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<td></td>
<td>Total Energy Efficiency, Kitchen/Commercial and Training</td>
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<tr>
<td></td>
<td>Total Non-Converting &amp; Non-Energy Efficiency</td>
<td>$353,350</td>
<td>$353,350</td>
<td>$266,210</td>
<td>$281,300</td>
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<td></td>
<td>Total Regional Climate Action and Energy Planning</td>
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<td>$1,302,540</td>
<td>$1,957,726</td>
<td>$28,245</td>
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<td>Total Regional Climate Action and Energy Planning</td>
<td>$1,400,400</td>
<td>$3,137,660</td>
<td>$7,567,180</td>
<td>$2,169,076</td>
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<tr>
<td></td>
<td>Total Workforce Development</td>
<td></td>
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<tr>
<td></td>
<td>Total Regional Energy Project Tracking and Permitting (CEEPMS)</td>
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<td>Total Water-Energy Nexus</td>
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<td>$507,120</td>
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<tr>
<td></td>
<td>Total World Energy Nexus</td>
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<tr>
<td></td>
<td>Total Non-Residential PAC</td>
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<tr>
<td></td>
<td>Total Low-Income Single Family Residential PAC</td>
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<tr>
<td></td>
<td>Total Pacific Aggregated Regional Procurement &amp; Fundshifts</td>
<td></td>
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<tr>
<td></td>
<td>Total 2013-2015 Authorized</td>
<td>$2,304,198</td>
<td>$2,264,175</td>
<td>$11,506,894</td>
<td>$12,972,689</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total 2013-2015 Offset from Pre-2013 Commitments as of 12/31/15</td>
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<td>$694,120</td>
<td>$2,169,076</td>
<td>$2,169,076</td>
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<tr>
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<td>Total Pre-2013 Commitments Remaining as of 12/31/15</td>
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<td>$9,303,818</td>
<td>$10,803,613</td>
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<tr>
<td></td>
<td>Total 2016 Authorized</td>
<td>$2,304,198</td>
<td>$2,264,175</td>
<td>$11,506,894</td>
<td>$12,972,689</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Total 2016 Carryover</td>
<td>$600,260</td>
<td>$600,260</td>
<td>$2,307,150</td>
<td>$2,307,150</td>
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<td></td>
<td>Total 2016 Budget Spent as of 12/31/15</td>
<td>$785,120</td>
<td>$785,120</td>
<td>$797,532</td>
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<tr>
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<td>Total 2016 Carryover</td>
<td>$1,005,000</td>
<td>$1,005,000</td>
<td>$8,294,198</td>
<td>$8,294,198</td>
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<tr>
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<td>Total 2016 Budget Requested</td>
<td>$1,005,000</td>
<td>$1,005,000</td>
<td>$144,020</td>
<td>$144,020</td>
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<tr>
<td></td>
<td>Total 2016 Offset from Pre-2016 Funds Returned to Ratepayers</td>
<td>$(281,287)</td>
<td>$(281,287)</td>
<td>$(281,287)</td>
<td>$(281,287)</td>
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<tr>
<td></td>
<td>Total 2016 Budget Requested</td>
<td>$1,724,711</td>
<td>$1,724,711</td>
<td>$7,980,015</td>
<td>$7,980,015</td>
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<tr>
<td></td>
<td>Total 2016 Budget Spent as of 12/31/15</td>
<td>$1,005,000</td>
<td>$1,005,000</td>
<td>$144,020</td>
<td>$144,020</td>
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</tr>
</tbody>
</table>

Appendix B.3 – Budget, Spent, Unspent, Carryover Details
### Appendix B.3 – Budget, Spent, Unspent, Carryover Details

#### SCR-FIN Financial Programs Total

<table>
<thead>
<tr>
<th>Program Name / Sub-Program Name</th>
<th>2016 Author/End. Budget</th>
<th>2015 Total</th>
<th>2016 Total</th>
<th>2016 Budget Spent as of 06/30/2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCR-UPC Residential Loan Loss Reserve</td>
<td>$2,307,158</td>
<td>$3,902,300</td>
<td>$3,779,250</td>
<td>$2,779,250</td>
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<tr>
<td>Integrated Comprehensive Whole Building Retrofit</td>
<td>$878,114</td>
<td>$776,080</td>
<td>$705,750</td>
<td>$612,430</td>
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<tr>
<td>SCR-REC REC Programs Total</td>
<td>$5,451,338</td>
<td>$5,451,338</td>
<td>$3,355,771</td>
<td>$2,522,425</td>
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<tr>
<td>New/Existing PA TOTAL with EM&amp;V</td>
<td>$21,651,000</td>
<td>$21,651,000</td>
<td>$19,572</td>
<td>$15,783,010</td>
</tr>
</tbody>
</table>

#### Pre-2013

- 2015 Total Budget
- 2016 Budget Spent as of 06/30/2016
- Remaining as of 06/30/2016

#### 2017 Proposed Budget

- Offset from Pre-2016 Carveout (Col X)
- Fundshifts

---

**Note:** The table above provides a detailed breakdown of the financial programs, their expenditures, and balances for the years 2015 and 2016, along with the proposed budget for 2017.
### Table 4 – Budget, Spent, Unspent, Carryover Details

<table>
<thead>
<tr>
<th>Total Authorization</th>
<th>2016 Total Budget with Commitments &amp; Fundshorts</th>
<th>2015 Total Budget</th>
<th>2015 Actual/Unspent/Uncommitted Carryover</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA PROGRAM TOTAL</td>
<td>21,651,000</td>
<td>21,651,000</td>
<td>19,015,000</td>
</tr>
<tr>
<td>NREL</td>
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<tr>
<td>Workforce Developmen</td>
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</tr>
<tr>
<td>Public Agency Revolving Loan Fund</td>
<td></td>
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</tr>
<tr>
<td>PA TOTAL with EM&amp;V</td>
<td>21,651,000</td>
<td>21,651,000</td>
<td>19,015,000</td>
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</table>

### Notes
- Calculated Incentive
- EM&V: Energy Management and Verification
- CPUC: California Public Utilities Commission
<table>
<thead>
<tr>
<th>NewBuilding Program #</th>
<th>Main Program Name / Sub-Program Name</th>
<th>2016 Unspent/Unused Funds Returned to Treasurers</th>
<th>2016 Net Available for 6/30/15</th>
<th>Pre-2017 Unspent/Unused Funds Available for 2015 afte</th>
<th>2017 Authorized Budget</th>
<th>2017 Fundshifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCR FIN</td>
<td>Financial Programs</td>
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<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
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<tr>
<td>SCR REC</td>
<td>REC Programs</td>
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<td>$8,294,190</td>
<td>$8,294,190</td>
<td>$8,294,190</td>
<td>$8,294,190</td>
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<tr>
<td>Contractor Outreach and Training</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td></td>
</tr>
<tr>
<td>Regional Energy Project Tracking and Permitting (CEEPM)</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td></td>
</tr>
<tr>
<td>Flex Path Incentives</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
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</table>

### 2017 Budget: Fundshifts and Spending to Date

<table>
<thead>
<tr>
<th>NewBuilding Program #</th>
<th>Main Program Name / Sub-Program Name</th>
<th>2017 Total Budget</th>
<th>2017 Budget as of 6/30/17</th>
<th>2018 Proposed Budget</th>
<th>2019 Budget Office from Cons 2017/Cons 2018 (Col J + Col P)</th>
<th>2018 Funds Requested</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCR FIN</td>
<td>Financial Programs</td>
<td>$14,921,861</td>
<td>$9,367,809</td>
<td>$2,307,150</td>
<td>$4,222,481</td>
<td>$87,860</td>
</tr>
<tr>
<td>SCR REC</td>
<td>REC Programs</td>
<td>$21,857,980</td>
<td>$15,054,808</td>
<td>$3,106,270</td>
<td>$5,956,000</td>
<td>$87,860</td>
</tr>
<tr>
<td>Contractor Outreach and Training</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
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</tr>
<tr>
<td>Regional Energy Project Tracking and Permitting (CEEPM)</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td></td>
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<tr>
<td>Flex Path Incentives</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
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### 2017 Budget: Fundshifts and Spending to Date

<table>
<thead>
<tr>
<th>NewBuilding Program #</th>
<th>Main Program Name / Sub-Program Name</th>
<th>2017 Total Budget</th>
<th>2017 Budget as of 6/30/17</th>
<th>2018 Proposed Budget</th>
<th>2019 Budget Office from Cons 2017/Cons 2018 (Col J + Col P)</th>
<th>2018 Funds Requested</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCR FIN</td>
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<tr>
<td>Contractor Outreach and Training</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
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<tr>
<td>Regional Energy Project Tracking and Permitting (CEEPM)</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
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<tr>
<td>Flex Path Incentives</td>
<td>$0</td>
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</tbody>
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### 2017 Budget: Fundshifts and Spending to Date

<table>
<thead>
<tr>
<th>NewBuilding Program #</th>
<th>Main Program Name / Sub-Program Name</th>
<th>2017 Total Budget</th>
<th>2017 Budget as of 6/30/17</th>
<th>2018 Proposed Budget</th>
<th>2019 Budget Office from Cons 2017/Cons 2018 (Col J + Col P)</th>
<th>2018 Funds Requested</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCR FIN</td>
<td>Financial Programs</td>
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</tr>
<tr>
<td>SCR REC</td>
<td>REC Programs</td>
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<td>$3,106,270</td>
<td>$5,956,000</td>
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<tr>
<td>Contractor Outreach and Training</td>
<td>$0</td>
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<tr>
<td>Regional Energy Project Tracking and Permitting (CEEPM)</td>
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<tr>
<td>Flex Path Incentives</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
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</tbody>
</table>
The Southern California Regional Energy Network (SoCalREN) is administered by the County of Los Angeles and funded by California utility ratepayers under the auspices of the California Public Utilities Commission.

This Annual Report was developed in 2017 within budget guidelines by:

County of Los Angeles – Office of Energy + Environment
  John L. Geiger
  Demetra J. McBride

ICF – SoCalREN Program Administrator
  Richard Jett
  Becca Rodgers
  Courtney Shea Owen
  Jessie Mancilla

Additional support and photography provided by:

The Energy Coalition
  Laurel Rothschild
  Meaghan Laverty

Sherri Johnson
Photography

City of Culver City
  Conejo Valley Unified School District

City of Palmdale
  Cucamonga Valley Water District

City of Santa Barbara
  Emerald Cities Collaborative

The color palette used in the SoCalREN logo and this document was inspired by the natural beauty of Southern California, specifically the succulent varietal pictured above. Succulents are water-preserving plants found throughout the region. They present a perfect example of sustainability and making efficient use of resources.