BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking Concerning Energy Efficiency Rolling Portfolios, Policies, Programs, Evaluation, and Related Issues.	Rulemaking 13-11-005 (Filed November 14, 2013)

SOUTHERN CALIFORNIA GAS COMPANY (U 904 G)
ENERGY EFFICIENCY PROGRAMS 2018 ANNUAL REPORT

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Southern California Gas Company (SoCalGas) submits its 2018 Annual Report for energy efficiency programs and accomplishments. The Annual Report is prepared in accordance with the Administrative Law Judge's Ruling Adopting Annual Reporting Requirements for Energy Efficiency and Addressing Related Reporting Issues (August 8, 2007),[1] and Decision (D.) 18-01-001 and 18-05-041. The Ruling requires "each utility to file its annual report on May 1 of the year following the end of a given program year."[2] Pursuant to Ordering Paragraph (OP) 8 of D.18-01-004, the dollar amounts of third-party contracts (provided in aggregate) are included in Appendix C. As directed by the Commission, particular contract dollar amounts will be provided confidentially to the Commission. Additional detail regarding third-party programs and statewide programs directed by the Commission is provided in Appendix C.[3] Pursuant to OP 11 of D.18-05-041, SoCalGas' progress towards metrics and indicators are included in Appendix D.

[1] Per the Ruling, issued in Rulemaking 06-04-010, filing and serving the Annual Report would apply to successor proceedings, which includes this docket. *See* Ruling, p. 4 (OP 2).

[2] *Id.* The attached Annual Report completely supersedes the version which was served on May 1, 2018.

[3] OP 17 of D.18-05-041 directed the investor-owned utilities (IOUs) to track the number and proportion of third parties that forego the option of using utility account representatives. Conclusion of Law 19 directed the IOUs to develop an agreed-upon annual report to facilitate ongoing statewide program funding-level management.

The Annual Report is attached and will be uploaded and available for viewing on the California Public Utilities Commission's Energy Efficiency Statistics Application (EESTATs) website.

Respectfully submitted on behalf of SoCalGas,

By: */s/ Holly A. Jones*
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ATTACHMENT

SOUTHERN CALIFORNIA GAS COMPANY

ENERGY EFFICIENCY PROGRAMS ANNUAL REPORT

2018 RESULTS

A Sempra Energy utility

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2018 ENERGY EFFICIENCY PROGRAM PORTFOLIO SUMMARY

Executive Summary

At Southern California Gas Company (SoCalGas), sustainability and environmental stewardship are fundamental elements of doing business. SoCalGas actively works to reduce the environmental impact of our operational practices and assists customers in reducing their impact by showing them how to use energy more efficiently. SoCalGas accomplishes this by offering a comprehensive suite of energy efficiency (EE) programs, strategies, and solutions to meet the dynamic energy needs of our customers. In 2018, SoCalGas continued the programmatic successes achieved in previous program cycles, and further refined its program delivery and implementation processes to actively seek EE opportunities and adapt to its diverse customer base. Additionally, SoCalGas began the implementation of its 2018-2025 EE Business Plan approved in Decision (D.) 18-05-041 and launching its EE third-party solicitation process approved in D.18-01-004. SoCalGas demonstrated the success of its programs by saving customers more than 51.8 million net therms in 2018, which represents 113% of the energy efficiency goal established by the California Public Utilities Commission (Commission or CPUC) in D.17-09-025. SoCalGas cost-effectively administered EE savings to customers, providing ratepayers nearly $200 million in resource benefits. In addition, as part of SoCalGas' commitment to help California meet its goal of greenhouse gas (GHG) emission mitigation, its EE programs avoided over 495,000 tons (gross) of carbon dioxide (CO_2).

SoCalGas continues to work closely with the Commission and other stakeholders to achieve California's strategic vision and goals to ensure: (1) maximum achievement of all cost-effective and feasible energy efficiency savings in the natural gas sector, (2) programs, strategies, and offerings that provide deep, long-term energy savings, and (3) energy efficiency programs that will generate quick and low-cost reductions in greenhouse gas emissions, as adopted in the California Long-Term Energy Efficiency Strategic Plan and Energy Action Plan (CLTEESP or Strategic Plan), and contribute to a doubling of energy efficiency by 2030, as adopted by Senate Bill (SB) 350. Approved through D.18-05-041, SoCalGas' 2018 EE portfolio activities also focused on achieving the following goals of its Energy Efficiency Business Plan to: (1) facilitate, sustain, and transform the long-term delivery and adoption of energy-efficient products and services, (2) cultivate, promote, and sustain lasting energy-efficient operations and practices; and (3) meet customers' energy efficiency adoption preferences through a range of simplified offerings that address customer energy efficiency needs.

In order to achieve the Commission's aggressive long-term goals, SoCalGas has partnered with municipal electric utilities and water agencies to increase its program reach, enhance cost-effectiveness, and offer comprehensive demand-side management offerings to customers. This approach minimizes lost opportunities, allows for more comprehensive and deeper energy efficiency projects, and increases operational efficiencies allowing for a more streamlined delivery of ratepayer-funded programs.

Notable successes during program year 2018 include the following:

Establishing SoCalGas' EE Procurement Review Group (EE PRG) and Independent Evaluators (IEs)
Pursuant to D.18-01-004, SoCalGas established a local and statewide EE PRG that will be utilized for EE third-party solicitations. The EE PRG is comprised of 13 non-financially interested parties, including CPUC Energy Division staff, California Energy Commission (CEC) Staff, and the California Public Advocates Office. The EE PRG shall advise SoCalGas to ensure solicitations for new third-party programs proceed with adequate oversight and to verify SoCalGas' compliance with its solicitation plan. Additionally, SoCalGas selected and utilized a pool of IEs to serve as consultants to the EE PRG. The IEs are expected to observe and report on SoCalGas' entire solicitation process.

Launching SoCalGas' Third-Party Program Solicitation Plan
Pursuant to D.18-04-004, SoCalGas established its third-party solicitation process with two different stages in the process – Request for Abstracts and Request for Proposals. SoCalGas worked with its pool of IEs to develop solicitation documents, reviewed and received approval of these documents by its EE PRG. In Q4 of 2018, SoCalGas launched its third-party program solicitation plan by releasing four Request for Abstracts for its residential sector.

Continued Success with Emerging Technologies (ET) Zero Net Energy (ZNE) Efforts
SoCalGas ET was awarded a national 2017 Technology Transfer Award from Electric Power Research Institute for its leadership and work on the deep retrofit, near-ZNE project in Lancaster, CA. This large project, which employed and integrated several emerging energy efficient and renewable technologies, was also highlighted in a Department of Energy Better Buildings online newsletter as one of the Top-10 Solutions in 2016. In 2018, SoCalGas ET continued its support by encouraging the use of compact gas meters gas sub-metering and AMI to start a behavioral study in this low-income apartment community, also co-funded by the CEC.

Leveraging SoCalGas' Advanced Meter Infrastructure (AMI) to Address California's Water Concerns
In 2018, SoCalGas completed its AMI Pilot Program with the San Gabriel Valley Water Company and California American Water, successfully achieving the following program goals: (1) network piggybacking, (2) combined utility data analytics for hot water leak detection, and (3) determining energy savings from reduced water loss. Each pilot successfully utilized hourly water and gas data for the identification and evaluation of potential hot water leaks, identifying 9 potential hot water and anomalous gas leaks during the pilot period. The final reports will be uploaded to the California Measurement Advisory Council database when available at: www.calmac.org.

Effective Collaborations of Programs
Through the Single-Point-of-Contact (SPOC) strategy, SoCalGas engaged 16 large multifamily portfolio owners, enrolling 7,600 units in the low-income Energy Savings Assistance (ESA) Program, as well as other energy efficiency programs such as Multifamily Rebate and On-Demand Efficiency Programs. Through the SPOC, SoCalGas also enrolled the largest senior housing facility in the United States located in Downtown Los Angeles into the ESA Program's

Multifamily Common Area Pilot. The facility received an ASHRAE Level II audit and started retrofits in 2018. SoCalGas' SPOCs also supported the implementation of demand response by promoting installation of smart thermostats in affordable housing portfolios.

***Project of the Year*: Strategic Partnering with Water Utilities Leads to High Energy Efficient Savings**

In 2018, SoCalGas in partnership with the Los Angeles Department of Water and Power (LADWP), conducted a project under its Savings by Design Program. The project incentivized a customer to implement an integrated design that performed at least 10% better than Title 24. The project was designed to minimize energy use in a building through designing a thermal energy storage system, radiant heating and cooling system, and a Heating, Ventilation, and Air Coordinating system that shuts down through sensors which dedicate when windows are opened. Through this project, SoCalGas saved over 100,000 therms and LADWP saved over 2 million in kWh/kW.

2018 Program Roster

Statewide Energy Efficiency Programs

- Residential Energy Efficiency Programs
- Commercial Energy Efficiency Programs
- Industrial Energy Efficiency Programs
- Agricultural Energy Efficiency Programs
- Emerging Technologies Programs
- Codes and Standards Programs
- Workforce Education and Training
- Statewide Marketing Education and Outreach
- Statewide Integrated Demand-Side Management (IDSM)
- Energy Efficiency Finance Programs

Government/Institutional Energy Efficiency Partnership Programs

- California Department of Corrections Partnership
- California Community College Partnership
- University of California/California State University/IOU Partnership
- State of California/IOU Partnership
- Los Angeles County Partnership
- Kern County Partnership
- Riverside County Partnership
- San Bernardino County Partnership
- Santa Barbara County Partnership
- South Bay Cities Partnership
- San Luis Obispo County Partnership
- San Joaquin Valley Partnership
- Orange County Partnership

- SEEC Partnership
- Desert Cities Partnership
- Ventura County Partnership
- Local Government Energy Efficiency Pilots
- New Partnerships Programs
- Regional Resource Placeholder
- Gateway Cities Partnership
- San Gabriel Valley COG Partnership
- West Side Community Energy Partnership
- Western Riverside Energy Partnership
- North Orange County Cities Partnership
- San Bernardino Regional Energy Partnership

Third Party Energy Efficiency Programs

- Small Industrial Facility Upgrades
- Program for Resource Efficiency in Private and Public Schools
- On Demand Efficiency
- HERS Rater Training Advancement
- Community Language Efficiency Outreach
- Multifamily Direct Therm Savings
- LivingWise™
- Manufactured Mobile Home
- California Sustainability Alliance
- Portfolio of the Future
- PACE
- Innovative Designs for Energy Efficiency Activities
- Instant Rebates! Point of Sale Foodservice Equipment Program
- Connect
- On-Premise Ozone Laundry

Pursuant to D.18-01-004 Ordering Paragraph (OP) 8, SoCalGas hereby provides information of all third-party contracts noted above in Appendix C of this report. SoCalGas describes the activities performed and the successes achieved during the 2018 program year in these programs in the section entitled *Program Description and Strategies* below.

Program Descriptions and Strategies

Residential Energy Efficiency Programs

The Residential energy efficiency sector programs offer and promote both specific and comprehensive energy solutions for residential customers. By encouraging adoption of economically viable energy efficiency technologies, practices, and services, these programs employ strategies and tactics to overcome market barriers while delivering services that support the CPUC's Strategic Plan and the Energy Efficiency Business Plan.

SoCalGas' Residential Energy Efficiency Programs focus is to:

- Facilitate, sustain, and transform the long-term delivery and adoption of energy efficient products and services for single and multi-family dwellings;
- Cultivate, promote and sustain lasting energy-efficient behaviors by residential customers through a collaborative statewide education and outreach mechanism; and
- Meet customers' energy efficiency adoption preferences through a range of offerings including single-measure incentives and more comprehensive approaches.

Residential Energy Efficiency Programs include a number of statewide subprogram elements that together comprise the core product and service offerings. These subprograms and efforts include Midstream Plug Load & Appliance, Residential Upstream Heating Ventilation and Air Conditioning (HVAC), and Residential New Construction.

Additional residential energy efficiency programs include the HOPPs (High Opportunity Projects or Programs) Central Water Heater Multifamily Building Solution Program and AB793 Residential Energy management Technology Solution Program.

SCG3701 Residential - Energy Advisor

The SoCalGas Residential Energy Advisor program is a continuation of the existing statewide Energy Advisor Program within the residential energy efficiency portfolio. In 2018, the program consisted of three main efforts under the umbrella of Energy Advisor. These were SoCalGas' Energy Advisor Surveys, Behavioral Home Energy Reports and Seasonal Savings.

SoCalGas' Energy Advisor Surveys were delivered to customers via postal mail, email and the universal audit tools. Through these channels, customers were afforded information regarding their energy use while empowering them to better manage their energy consumption. In addition, outreach initiatives and interactive tools were utilized to engage customers to participate in innovative efforts via Behavioral and Seasonal Savings Programs.

The Behavioral Program focuses on acquiring energy savings as a result from changes in customer energy usage behavior and employs comparative energy usage and disclosure, ex post measurement, and experimental design. Randomly selected residential customers receive their energy usage feedback via paper and email reports leveraging their usage data. This program involved the use of normative or comparative information, personalized communication in relation to the customers' energy usage, and any other demographic factors.

The Seasonal Savings Program utilized a software algorithm that targeted SoCalGas customers with Nest thermostats. These customers were given the opportunity to make their heating schedules more efficient through a series of very small adjustments. The algorithm results in more energy efficient heating schedules.

In 2018, over 15,000 Energy Advisor Surveys were completed resulting in over 13,000 Energy Efficiency Kits being distributed in support of SoCalGas' PLA program. The PLA program was also supported by survey reports promoting the smart thermostat rebate, as well as the newly launched online marketplace in response to Assembly Bill 793. In addition, 1,275 surveys were distributed through a small-scale school program from over 61 in-class presentations targeting 3rd to 5th grade classrooms. The Behavioral Program delivered over 800,000 energy usage feedback reports otherwise known as Home Energy Reports via direct mail and email to randomly selected residential customers. In addition, nearly 80,000 customers with a Nest Thermostat participated in the Seasonal Savings Program in 2018.

While overall the programs were successful in achieving their intended goals, there were some challenges. The Energy Advisor survey completion rate via the Universal Audit Tool (UAT) has remained flat for the past two years, possibly attributed to distress in completing the survey due to its length. The Behavioral program also faced some challenges. The residential customer population to randomly select participants diminished in size as the program expanded. In prior years the campaign reached over 300,000 and in 2018 it expanded to over 805,000 residential customers.

SCG3702 Residential - Plug Load and Appliances

The SoCalGas Residential Plug Load and Appliances (PLA) program consists of the Home Energy Efficiency Rebate (HEER), Business Consumer Electronics (BCE) and Appliance Recycling (ARP). The subprogram develops and builds upon existing relationships with retailers and includes recycling strategies and whole house solutions, plug load efficiency, performance standards, and opportunities for integration with local government, water agencies, publicly owned utilities (POUs), and the Integrated Demand Side Management (IDSM) subprogram.

SoCalGas' Residential PLA program achieved success in 2018 through improved and continued efforts with participating retail partners. This included the use of in-store signage, increased program visibility and weekly in-store events with third party retail contractors. In 2018, the Residential PLA program managed to increase visibility in hard-to-reach areas through in-store marketing communication and retail store site visits. The success of these efforts is attributed to multiple marketing and outreach campaigns which contributed to the SoCalGas Residential PLA program meeting or exceeding its respective Program Implementation Plan forecasts. With the PLA program processing rebates in-house and a now fully functioning mobile and online web application, in 2018 the program experienced a 30% increase in rebate applications with over 50% of total applications coming from the mobile domain. SoCalGas expects to see an even larger increase in mobile applications in 2019.

Program year 2018 also marked the first full year of SoCalGas' Marketplace website featuring energy-efficient home appliances and consumer electronics. The Marketplace website was helpful in providing rebate information on eligible natural gas products and appliances to customers as well as helping drive customers to SoCalGas' mobile application page. SoCalGas' Marketplace had over 250,000 hits during the year and the number is expected to grow in 2019 with additional advertising and promotions aimed at helping to drive customers to the site.

SCG3703 Residential - Plug Load and Appliances Point of Sale

The SoCalGas Residential PLA Point of Sale (POS) program is a merger of the former HEER, BCE, and ARP and builds upon existing point of sale retailer relationships and includes Responsible Appliance Disposal (RAD) appliance recycling strategies. PLA POS offers rebates and incentives to customers instantly when they purchase and install Energy Star® qualified appliances such as clothes washers and recycling inefficient refrigerators and freezers.

The PLA POS program continued efforts in 2018 to more effectively and actively recruit new and engage with existing retail partners in developing programs and enhance retail store presence. The goal is to increase retailer/customer participation and utility visibility at retail locations. Residential appliance rebate offerings have become the major contenders for future POS program developments and additional programs are being evaluated. Promotions focused on using consistent point of purchase marketing material statewide and local store weekend outreach, setting the foundation for new targeted promotions and more retailers to participate in the future.

As previously mentioned, SoCalGas coordinated efforts with participating POS big box retailers to promote rebates and other SoCalGas residential measures at in-store outreach events throughout 2018. SoCalGas outreach representatives visited a minimum of six participating POS stores each weekend (in six-hour shifts) from January through early December 2018. In 2018, SoCalGas's mobile application was also introduced into POS retail stores for eligible appliances not covered by instant rebates.

SCG3704 Residential - Multifamily Energy Efficiency Rebates

The SoCalGas Residential Multifamily Energy Efficiency Rebates (MFEER) program offers rebates to multifamily building owners and managers for installation of qualified energy efficiency products in apartment dwelling units and in common areas of apartment complexes, condominiums and mobile home parks. Energy efficiency measures include insulation, water heating and space heating.

In 2018, SoCalGas emphasized the role of the SPOC to conduct informational sessions, attend outreach events, deliver a holistic package of multifamily upgrade solutions, and assist decision makers in submitting rebate applications. The SPOC role was reinforced with additional tools to enable a streamlined collaboration among the multiple SoCalGas multifamily programs. Such tools include access to additional relationships that will facilitate the customer referral process, ability to validate customers eligibility at the time of customer engagement, and revised collateral to create higher awareness for conferences and seminars held at SoCalGas facilities for MFEER. This enabled the MFEER program to collaborate effectively with the ESA Program, Multifamily Direct Therm Savings (MFDTS) and Energy Upgrade for Multifamily buildings. Additionally, two contractors became highly engaged in promoting the program and are on target to become ambassadors for MFEER in 2019.

SCG3705 Residential – Home Upgrade Program

The SoCalGas Residential Energy Upgrade California® Home Upgrade Program (HUP) uses a holistic approach to identify and correct comfort and energy-related deficiencies in single family detached homes. Contractors employ building science principles and use sophisticated diagnostic equipment to detect the cause of home performance related problems, and quickly and accurately address them. There are two options to this program, Home Upgrade and the Advanced Home Upgrade. These options allow the customer to choose from a variety of measures that best suit their home and needs. Some examples of measures used consist of attic insulation, air sealing, duct testing, HVAC change out, hot water heaters, pipe wrap, Showerstart® thermostatic control valves, along with combustion safety testing.

As a result of the HUP and the joint programs with Burbank Water and Power, Pasadena Water and Power, PG&E, SDG&E, Southern California Edison and Los Angeles Department of Water and Power (LADWP) the total jobs completed for 2018 resulted in nearly 1,000 homes being treated. There was a high engagement with email communications with an average rate nearing 50%. On average twenty unique contractors submitted projects each month.

Middle Income Direct Install

The SoCalGas Middle Income Direct Install (MIDI) is a direct install program for customers that works in collaboration with the income qualified ESA program using the ESA contractors to initiate leads for MIDI. To close the financial gap, no-cost measures are installed, reducing the total amount of money a customer would need to invest in their property in order to participate in HUP or Multifamily HUP.

The MIDI program saw an increase in projects at the end of the 1st quarter of 2018 when the program effort was combined with the SCE Residential Direct Install program. Approximately 12,000 smart thermostats were installed in 2018 introducing energy management technologies to SoCalGas customers which is in line with AB793 efforts and can be leveraged with SoCalGas' behavioral programs. Many recipients of these smart thermostats are now opting into SoCalGas' Seasonal Savings program, helping compound energy savings opportunities. SoCalGas, Irvine Ranch Water District (IRWD), and SCE united in 2018 to leverage natural gas, water, and electric efficiency and conservation measures in one seamless delivery to customers in the IRWD service territory. In the final quarter of 2018, SoCalGas' MIDI program was renamed the Residential Direct Install program

SCG3706 Residential – Residential HVAC

The SoCalGas Residential Upstream Heating, Ventilation and Air Conditioning (HVAC) program provides incentives to distributors for stocking and selling high-efficiency residential HVAC furnaces. By offering equipment incentives upstream, the program maximizes the opportunities to influence the repair, replace or purchase decision and transform the furnace market through the supply chain. Manufacturers and distributors influence purchases and stocking decision and may use the incentives at their discretion to promote high-efficiency product sales.

In 2018, distributors continued have reported continued difficulty in obtaining project and customer data. Inspections also continue to have challenges as the ultimate consumer is often disconnected from the Upstream transaction. Zip code validation only on high efficiency upstream furnaces may provide a solution for the distributors and will be considered moving forward to encourage participation.

The Residential Quality Installation (QI) program provides incentives to participating SoCalGas customers for the installation of high efficiency gas furnaces when installed to Energy Star® HVAC Quality Installation specifications by a participating contractor. In 2018, high product costs continued to be a barrier. The offered incentive does not appear to be great enough for customers to offset the cost of qualifying equipment and inconsistencies in offerings by neighboring utilities make it difficult to partner up for a more effective implementation. Additionally, it is possible that most HVAC installations are performed without a permit. These installations are typically less expensive which can lead to customers forgoing quality installation incentive programs.

SCG3707 Residential – Residential New Construction

The SoCalGas California Advanced Homes Program (CAHP) is a comprehensive residential new construction program concept with a cross-cutting focus on sustainable design and construction, green building practices, energy efficiency, and emerging technologies. Through a combination of education, design assistance and financial support, the CAHP works with building and related industries to exceed compliance with the California Code of Regulations, Title 24, Part 6, Building Energy Efficiency Standards for Residential and Nonresidential Buildings (Standards), to prepare builders for changes to the Standards and to create future pathways beyond compliance and traditional energy savings objectives. Participation is open to single-family as well as low-rise and high-rise multi-family residential new construction built in an IOU service territory.

2018 was a relatively successful year for CAHP as it came close to meeting program targets despite challenges with joint project enrollments. The major barrier for 2018 continued to be Title 24 standards as the State approaches ZNE goals. It's becoming progressively more difficult for builders to exceed code by a sizable margin and the base case energy allowance for residential units is becoming so low that allowable claimed savings are quickly diminishing. Also, the measures necessary to reach qualification are more difficult to implement and involve whole building design changes. The statewide CAHP team addressed these concerns by adding two hybrid measures that not only receive a kicker bonus but also boost the home's Energy Design Rating (EDR) for meeting the entry and above Delta EDR requirements.

SCE reopened the CAHP program to its customers starting Q2 of 2018 which allowed SoCalGas to offer increased incentives available to the builders with projects in the joint territory with SCE.

Jointly with SCE, SoCalGas offered an enhanced CAHP incentive program to those rebuilding homes that were damaged by the Thomas fires and resulting debris in Ventura and Santa Barbara counties. The incentive through this program was 150% of the normal incentives for CAHP.

SCG3808 Residential – Residential HOPPs Central Water Heating Multifamily Building Solution Program

The Central Water Heater Multifamily Building Solution (CWHMBS) Program is a bundled measure program that addresses stranded opportunities within the multifamily sector. Specifically, the program provides incentives to Property Owners for the upgrade of both central domestic hot water systems and water usage improvements, thus capturing stranded energy savings that would have been otherwise overlooked. The target market for the CWHMBS Program is gas master-metered multifamily buildings, regardless of income level, capable of achieving at least 15% energy savings within SoCalGas' service territory.

The CWHMBS Program provides pre and post-measurement of energy savings calculations. The pre and post-measurement incentive strategy is facilitated by metered data and all necessary information needed for energy savings evaluation. Additionally, in support of participants employing the program's required upgrades, this program enables data access by proactively providing central meter gas usage information to building owners. Thus, the CWHMBS Program uses a hybrid incentive approach designed to encourage customers to capture deep energy savings and to leverage a metered approach to collect data. Incentives are paid in two steps:

1. On completion of the measure installation (Pre-Measurement Incentive); and
2. One year after installation has been completed and the savings have been measured by the Evaluation Measurement and Valuation (EM&V) consultant, an energy payment is calculated.

The measures required to participate in the CWHMBS Program are: Circulating Demand Pump Controller, Central Water Heater Modulating Temperature Controller, Central Domestic Storage Water Heater (Boiler or Tankless Water Heater), Low Flow Showerheads, and Hot Water Usage Metering and Monitoring Service Agreement.

Throughout the year the CWHMBS program participated in several workshops hosted by SoCal Gas at the Energy Resource Center. These workshops served to clarify program requirements for customers and contractors, while creating awareness for boiler controller technology. As the CWHMBS program demonstrated the benefits that the multifamily market could gain from financing opportunities, On-Bill Financing updated rate schedule requirements to include multifamily buildings. Financing served as a tool to encourage building owners to initiate upgrades.

SCG3810 Residential – Residential Energy Management Technology (REMTs) Program aka (HEARTh)

The Residential Energy Management Technology (REMTs) Program aka Home Energy Automation Resource Technology (HEARTh) Program is a residential direct install/pay for performance program with a small customer copay (varying between $50 - $100) that introduces energy management technologies to targeted single-family residential homes. The program takes

a comprehensive approach to energy savings through the installation of a smart thermostat, use of a weather optimization protocol with the smart thermostat, a web-based controller on the storage water heater (SWH), and additional energy savings from the installation of an auto-diverting tub spout with a thermostatic shut-off valve ("tub spout").

Commercial Energy Efficiency Programs

The Commercial Energy Efficiency (CEE) Programs offers California's commercial customers a statewide-consistent suite of products and services to overcome the market barriers to optimized energy management. The program targets integrated energy management solutions through strategic energy planning support; technical support services, such as facility audits, and calculation and design assistance; and financial support through rebates, incentives, and financing options. Targeted end users include all commercial sub-segments such as distribution warehouses, office buildings, hotels, motels, restaurants, schools, trade schools, municipalities, universities, colleges, hospitals, retail facilities, entertainment centers, and smaller customers that have similar buying characteristics.

The CEE Programs consist of six core statewide subprogram elements, including: Commercial Energy Advisor, Commercial Calculated Incentives, Commercial Deemed Incentives, Continuous Energy Improvement, and Nonresidential HVAC. Additional programs in the Commercial sector include the Commercial Direct-Install program and the HOPPs (High Opportunity Projects or Programs) Commercial Restaurant Retrofit program. IOU offerings also include local program elements such as third-party programs, Mid-Stream Water Heating Rebates, Commercial Direct Install, and local government partnerships that have close ties to Business Improvement Districts.

SCG3708 Commercial - Energy Advisor

The Commercial Energy Advisor ("CEA") program brings together services that support customer education and participation in energy efficiency, and energy reducing opportunities and benefits, along with awareness of greenhouse gas and water conservation activities.

The CEA program met its yearly audit goals of 790 customers visits. Audits were achieved via our Account Executive, Engineering, and Local Government Partnership force.

Customers engagement increased this year for the commercial sector. Success rests on the reputation of our customer commitment and ability to bundle program offerings at time of the visit. Directing our customers to workforce, education and training (WE&T) classes, along with free equipment trials via our Energy Resource Center, positioned SoCalGas at the forefront of our customers mind.

SCG3709 Commercial – Continuous Energy Improvement

Continuous Energy Improvement (CEI) is a non-resource program designed to make energy an organizational priority for customers by employing change management and process improvement strategies to energy management resulting in energy efficiency projects and driving

savings. Energy Advisors provide strategic energy management coaching, consulting, and training. Program milestones for each engagement include forming an energy management team, creating a baseline model of energy intensity, conducting organizational and ASHRAE Level 1 assessments, creating a prioritized pipeline of measures, setting an energy reduction goal, developing a plan to reach the goal, and adopting a strategic energy management.

Pursuant to D.16-08-019, the utilities were directed to modify their continuous energy improvement programs or develop new programs to offer a robust strategic energy management program, using a statewide program design.[4] This newly designed CEI program is now called the Strategic Energy Management (SEM) program and has been launched in the Industrial sector only for 2018. It is expected that after the initial 2-year observation period, a similar approach may be initiated for a Commercial SEM program, therefore no new customers were recruited for the Commercial CEI program in 2018.

SCG3710 Commercial - Calculated Incentives

The SoCalGas Commercial Calculated Incentives program offers financial incentives for customized new construction, retrofit and retro-commissioning energy efficiency projects. It also provides comprehensive technical and design assistance. Incentives are paid on the energy savings above and beyond baseline energy performance, which include state-mandated codes, federal-mandated codes, industry accepted performance standards, or other baseline energy performance standards.

The SoCalGas Commercial Calculated Incentives program includes the Savings by Design (SBD) subprogram, which serves the commercial new construction segment. SBD promotes integrated design by providing owner incentives, design team incentives, and design assistance to participants who design spaces that perform at least 10% better than Title 24. SBD is offered in collaboration with SCE and LADWP in the respective shared territories. The SBD program staff participated with a workgroup with one of the partnership groups to educate them on the program and help identify best practices to increase participation with the SBD program. SoCalGas continued to have a successful partnership with LADWP in delivering the SBD program in their joint territory.

The Commercial Calculated Incentives program experienced a similar amount of applications into the program as it did the previous year.

The Commercial Calculated Incentives program completed a process improvement and quality control review of the application process in 2018. Control points were identified to improve project quality throughout the complex process of the custom program. SoCalGas also participated in and incorporated feedback from a review of the *ex-ante* process and the CPUC's Track 2 Working Group.

[4] D.16-08-019, at p. 42.

SCG3711 Commercial - Deemed Incentives

The Commercial Deemed Incentives (CDI) Program offers rebates to customers in an easy to use mechanism that offsets the cost of off-the-shelf energy saving equipment in order to cost-effectively subsidize and encourage adoption of mass market efficiency measures through fixed incentive amounts per unit/measure.

The Program also offers distributor and manufacturer incentives that aims at eliminating incremental initial costs to the customer using a midstream approach. The Program's objective is to assist SoCalGas customers in saving money and energy. The Program at the same time educates and motivates SoCalGas customers' plumbers and contractors about the benefits of participating in EE rebate programs. The primary goal of the Midstream Commercial Water Heater Distributor Rebate sub-program is to increase water heater purchases by having distributors stock and sell high-efficiency water heaters, having equipment readily available for our SoCalGas customers at a discounted price, and providing the distributor a rebate directly to them for their efforts.

In 2018, marketing outreach for both foodservice equipment vendors as well as non-foodservice equipment in conjunction with SoCalGas' TradePro directory continues to result in increased program participation. Foodservice equipment measures contributed towards half of the total energy savings achieved in the CDI program for 2018.

SoCalGas was able coordinate discounts for bulk purchases of water heaters over 90% efficiency rating in outlying service areas due to the Midstream Commercial Water Heater Rebate sub-program strong communication happening between SoCalGas representatives and partnering distributors. The success of the Midstream programs is by the achievements of continued strong relationships between the customers, plumbers, contractors, SoCalGas representatives, and distributors as well being consistent with our outreach and marketing efforts.

The commercial heat recovery rooftop unit, recirculating pump control, the recirculating pump time clock and pipe fittings were added to the 2018 program offerings.

The CDI Program exceeded projected 2018 savings goal objectives due to the combination of the Midstream Commercial Water Heater Rebate Program and to the marketing efforts of the foodservice outreach as well as the activities of Trade Pro directory. The therm exchange mechanism partnership with SCE was also a valuable savings contributor.

SCG3712 Commercial – Non-Residential HVAC

The Commercial Heating, Ventilation, and Air Conditioning (HVAC) Program delivers a comprehensive set of midstream and upstream strategies that builds on existing programmatic, educational, and marketing efforts and leverages relationships within the HVAC industry to transform the market towards a sustainable, quality driven market.

The Upstream HVAC Equipment Incentive offers incentives to distributors who sell qualifying high-efficiency commercial HVAC equipment to increase the stocking and promotion of such equipment.

Throughout 2018, SoCalGas worked with the Statewide (SW) Investor Owned Utility (IOU) HVAC program teams individually and through the Western HVAC Performance Alliance (WHPA) on improving elements of the commercial HVAC programs including the development of SW Commercial Quality Maintenance (CQM) workpaper and coordinating efforts on WE&T and inspection requirements which further reduce the administrative burden of the program. The collaboration of IOUs across multiple WHPA committees plotted a successful course to meet the HVAC Long Term Strategic Plan and market transformation goals in 2018. In order to adapt to market forces, regulatory requirements, and the changing EE landscape, SoCalGas continued to evaluate and adjust elements of the program to further promote higher efficiency units. SoCalGas worked in conjunction with the IOUs SW team to review and align incentives for consistency and to achieve continuity across program offerings. A key deliverable of the Program that has continued to be supported is the transition to an SDG&E SW led HVAC program that is being developed through the SW third-party solicitation process. Additionally, SoCalGas continued to work on several workpaper updates including multi-speed large unitary and chiller systems.

SCG3805 Commercial - Direct Install Program

The SoCalGas Commercial Direct Install (DI) Program offers a variety of natural gas EE qualified equipment to small medium-sized commercial businesses throughout SoCalGas' service territory and joint service utilities territories.

SoCalGas has established implementation relationships with four (4) energy solutions contractors and two (2) publicly-owned municipal utility companies to layer on natural gas energy efficiency equipment through their Commercial Direct Install Program. Customers may participate in the Program by contacting contractors that specialized in natural gas energy solutions, contacting contractors that perform work on behalf of SCE, or contacting company representatives for LADWP or the City of Pasadena Water & Power.

The Program objective is to capture unlimited energy savings at each small or medium sized business. Contractors are incentivized to install the easiest, no-cost equipment available. The Program provides ways to reduce business energy costs, save money, and minimize the rebate process by installing joint utility equipment. The Program also provides customer education about other rebate and incentive programs regardless of their utility service provider.

In Q3 2018, outreach efforts to SoCalGas customers included launching a new DI Schools Energy Efficiency Program (SEEP) to educational service facilities in both the private and public sectors.

At the end of 2018, the program clearly met and significantly exceeded its net and gross therm savings goals by 10% for an additional 600,000 gross therm savings, and 400,000 net therm savings. Finally, through the program, SoCalGas was able to offer and install no-cost equipment to approximately 3,800 customers, while maintaining the Program's overall cost-effectiveness.

SCG3807 Commercial – HOPPS-CRR Program

The SoCalGas Commercial Restaurant Retrofit (CRR) Program, authorized through the HOPPs process, targets the hard-to-reach commercial foodservice sector. The program is designed as a comprehensive, whole-building retrofit program that proposes to address stranded therm savings. Specifically, the restaurant provides enhanced rebates and performance incentives, as well as referrals for rebate programs through partnering with electric and water utilities, for upgrades across multiple upgrade categories. These upgrades include but are not limited to kitchen equipment, building envelope measures, water-saving measures and lighting. To capture stranded therm savings, the program uses the Normalized Metered Energy Consumption (NMEC) process to calculate savings, enabling the program administrator to capture savings at the existing condition baseline. Using the customer-facing name "Restaurant Refresh," the program targets restaurant owners with education, technical support, on-site energy assessments, enhanced rebates and "performance" incentives based on one-year gas savings measured through the NMEC process.

In 2018, the program focused on outreach to a highly targeted list of approximately 500 eligible customers across SoCalGas territory, later expanding eligibility to a larger pool of approximately 5,000 commercial foodservice facilities after determining that the NMEC process could reliably measure savings on a wider array of facilities. A total of 57 customers received a no-cost energy assessment, with 33 receiving a complimentary energy-saving toolkit, and nine signed an agreement stating their intent to participate in the incentive portion of the program. One customer ultimately participated, resulting in installed equipment with a passing inspection, and received an enhanced rebate. The savings will be calculated using the NMEC process and claimed during 2019.

As a complex pilot program, CRR has faced some challenges which include: Outreach to end-users has proven very difficult, in part due to the nature of the industry (restaurants are notoriously time-constrained, generally unaware of utility assistance programs, and well-guarded from solicitation at a corporate level). Initially, the target pool of customers was determined to be a limiting factor in outreach, although the team worked through this challenge to expand the pool of customers. Customers that received an assessment noted that some of their concerns were related to the requirement to upgrade three pieces of equipment in one location – for many restaurants this is both too significant a business change as well as a financial upfront cost. Many restaurants also noted concerns about the overall upfront costs. Many commented that the incentive design felt confusing – although the initial incentive payment was straightforward, the performance incentive was uncertain and not a big reason to participate. Finally, some felt that

the equipment they needed – either due to personal brand preferences or products produced in their kitchens – was not available for incentives through the program.

In 2018, eligibility requirement updates worked to address customer outreach challenges. Initially, the eligible customer base was limited to restaurants with a 2016 therm usage of 50,000+ therms. These were primarily chains located in Los Angeles and Orange Counties. Many were found ineligible from sharing multiple walls, further limiting potential participation. By March 2018, the team used the initial data from sites audited to determine that restaurant usage is generally predictable through the NMEC process. Therefore, the team felt comfortable expanding eligibility requirements to broaden the eligible base. It was determined that restaurants with a 2016 therm usage of 10,000 therms or more could participate, so long as the restaurant displayed at least a 10% potential therm savings. Paperwork requirements were also simplified to enable customer participation: gas consumption data requests were sent directly through the SoCalGas program manager instead of the customer, reducing the amount of paperwork required by the customer.

SCG3809 Commercial Energy Management Technology Lodging (CEMTL) Program

The commercial lodging sector represents a significant contributor in terms of participation in SoCalGas's energy programs. Although the overall commercial lodging sector participates actively in SoCalGas's energy program, small- and medium-sized commercial lodging customers, specifically, do not employ an integrated whole building Energy Management Technologies (EMT) approach when implementing EE in their establishments. A whole-building integration approach focuses on the overall building energy performance and usually involves installing a mix of EE measures that interact together to reduce total energy consumption. Lodging facility operators may identify areas of cost reduction in their daily activities; however, there are missed opportunities to incorporate best practices in equipment operations and maintenance, staff behavior modifications, and energy efficiency upgrades applicable to the whole building. Lodging owners and operators typically only upgrade single room equipment and fail to observe the potential for integrated energy savings.

The CEMTL Program targets owners or lessors of existing, stand-alone, commercial lodging buildings—incentivizing customers to implement EMTs and whole-building measures. Through the CEMTL Program, customers will install EMT measures to capture behavior-based savings. In addition, customers will be able to proactively identify equipment problems prior to failure and apply integrated energy savings strategies through whole building approaches. By implementing this whole building approach, the SoCalGas CEMTL Program will achieve an average of a 10% reduction in each of the 90 program projects.

The program began ramp-up with implementer activities getting started in July of 2018. The program has been working to identify potential customers and projects with projects expected to be enrolled in 2019. At the end of 2018 the program has been working to update its requirements for NMEC projects.

Industrial Energy Efficiency Programs

The Industrial Energy Efficiency (IEE) Programs provides services to improve the energy efficiency of industrial facilities in California. The primary services offered to industrial customers include:

- Energy audits covering EE and demand management opportunities;
- Technical assistance in measure specification, procurement, and project management;
- Post-installation inspection and analysis to verify performance;
- Continuous energy improvement consultation; and
- Financial incentives and project financing for installed measures.

Financial incentives are based on deemed energy savings by per unit of equipment and calculated energy savings by per unit of energy.

The IEE Programs include four statewide subprogram elements that together comprise the core product and service offerings. Each IOU offers local programs that complement and enhance the core offerings in their region. The local portfolio mix of SoCalGas is specifically designed to enhance energy efficiency and demand-side management (DSM) opportunities for industrial customers, including financial solutions.

SCG3713 Industrial - Energy Advisor

The Industrial Energy Advisor (IEA) program brings together services that support customer education and participation in energy efficiency, and energy reducing opportunities and benefits, along with awareness of greenhouse gas and water conservation activities.

The IEA program met its yearly audit goals of 445. Audits were achieved via our Account Executive and Engineering force.

Customers engagement slightly increased this year for the industrial sector. Success rests on the reputation of our customer commitment and ability to connect Subject Matter Experts (SMEs) with customers of this sector. Industrial customers rely on complex processes from raw gods to finished products. As such, they require SMEs who are positioned the forefront of technology and represent SoCalGas' customer centric values.

Natural gas continues to be an inexpensive conduit of energy and ranks low in customer's equipment upgrade policies. Additionally, natural gas driven equipment has achieved mechanical efficacy that a nearly decrepit equipment will continue to perform under the most rigorous of environments. Industrial customers revealed increased interest in our audit services this year.

SoCalGas will continue to deliver audit reports to the customer, our reporting will evolve to hand-hold customers with rebate application and custom application process support and follow

up. SoCalGas strives to be as a source for natural gas EE solutions by providing financing options and bundled DSM offerings.

SCG3714 Industrial – Continuous Energy Improvement

The Industrial CEI (also known as the Strategic Energy Management or "SEM") Program is a two-year program that engages a cohort of large industrial customers to drive persistent gas and electric savings across their entire facility. Specifically, the program includes a full spectrum of services:

- Cohort workshops with clearly defined learning objectives and well-facilitated peer-to-peer learning;
- On-site "Energy Treasure Hunts" to identify, track, and prioritize energy saving opportunities (one Treasure Hunt in year one and another in year two);
- On-site and remote support for: goal development, employee engagement, energy map development, energy data collection and data logging, project savings persistence strategies;
- Support for designing and implementing an Energy Management Information System; and
- Implementation of an "Energy Management System Assessment" to assess progress on each participant's management approach and to plan future improvements.

Energy savings opportunities in the SEM program include low-cost Behavioral, Operational Efficiency and Retrocommissioning (BRO) measures as well as capital projects. The program measures savings at the meter level, using a normalized regression model that accounts for factors such as production volume and weather that affect energy consumption. Customers receive incentives for BRO measures, for capital projects, and for achieving key milestones.

This program complies with the California Industrial SEM Design Guide and the California Industrial SEM Measurement and Verification (M&V) Guide, which have been approved by the Commission.

The program requires commitment from customers, so it is not suitable for everyone. Within a few months, the program team successfully recruited eight large industrial customers in the Inland Empire region of California.

The program launched in August 2018 with customers participating enthusiastically in an intensive series of activities over the first five months, including a kick-off meeting, two workshops, a treasure hunt, facility energy mapping, and data gathering for the regression model. Each customer also built up an energy team, led by an energy champion.

The treasure hunts generated more than 370 energy savings projects, or more than 45 projects per customer. Forty projects were completed. According to the program rules in the SEM Design Guide, savings will be calculated at the end of each Program Year (i.e. July 31).

The program created draft energy regression models for gas and electricity for each participant, which were then reviewed by utility staff and a third-party reviewer. The gas models were finalized in 2018.

The program saw many successes in 2018, such as recruiting eight participants, delivering kick-off meetings, workshops, and treasure hunts according to schedule, creating energy regression models, delivering milestone incentives to eligible participants, and developing a portfolio of capital and BRO projects.

SCG3715 Industrial - Calculated Incentives

The SoCalGas Industrial Calculated Incentives subprogram offers incentives for customized retrofit EE projects. The subprogram features incentives based on calculated energy savings for measures installed as recommended by comprehensive technical and design assistance for customized and integrated energy efficiency/demand response initiatives in new construction and retrofit projects.

Heat recovery and boiler measure type projects continue to be large contributors of energy savings for the SoCalGas Industrial Calculated Incentives subprogram. On-going activities such as energy audits of facilities, walk through surveys, and technical assistance for this sector continue to provide value in identifying applicable energy efficiency opportunities.

The Industrial Calculated Incentive program continues to experience barriers to finding eligible projects. Barriers to success include but are not limited to program complexity, measure reduction, and baseline issues. These have adversely impacted program participation.

The Industrial Calculated Incentive program completed a process improvement and quality control review of the application process in 2018. Control points were identified to improve project quality throughout the complex process of the custom program. SoCalGas also participated in and incorporated feedback from a review of the *ex-ante* process and the Track 2 working group.

SCG3716 Industrial - Deemed Incentives

The Statewide Industrial Deemed Incentives Program provides services to improve the EE of industrial facilities in California, including offering financial incentives based on deemed energy savings. The energy savings are deemed for measures installed. The Program is part of a suite of programs within the Statewide Industrial EE Program. It also features rebates per unit measure for installed energy-saving projects and provides the IOU, equipment vendors, and customers an easy-to-use mechanism to cost effectively subsidize and encourage adoption of mass market efficiency measures through fixed incentive amounts. The Program also offers rebates to customers in an easy-to-use manner to offset the cost of off-the-shelf energy saving equipment.

The Industrial Deemed Incentives Program directly addresses key market factors that cause higher energy costs for California businesses. By providing a menu of prescribed common

measures, this simplified the process of reviewing project proposals offers an itemized EE measure rebate list that reduces the cost of retrofitting outdated and inefficient equipment. This element makes the Program attractive for customers to spend money in the short run to achieve lower energy costs in the long run.

Using itemized EE measures was intended to overcome barriers that prevent many business customers from adopting EE alternatives. The barriers were addressed by itemizing common EE measures and rebates, stimulating the supply of high efficiency equipment and products (through higher demand), and offering rebates that help offset higher start-up and down payment expenses for energy efficient retrofits. Through a favorable process evaluation, the pipe insulation measure expanded its offering to include higher incentives for larger pipe for 2018. Pipe and tank insulation and steam process boiler measures were the focus for deemed energy savings in 2018 for the industrial sector, however, the program fell slightly short of its projected 2018 savings goal.

Agricultural Energy Efficiency Programs

The Agricultural Energy Efficiency (AEE) Program facilitates the delivery of integrated energy management solutions to California's agricultural customers. The program offers a suite of products and services, such as strategic energy planning support, technical support services, facility audits, pump tests, calculation/design assistance, financing options, and financial support through rebates and incentives. In addition, the program adopts and supports the strategies and actions of the Agricultural and Industrial chapters of the CLTEESP and the energy efficiency business plan.

The AEE Programs target end-users such as irrigated agricultural growers (crops, fruits, vegetable, and nuts), greenhouses, post-harvest processors (ginners, nut hullers, and associated refrigerated warehouses), and dairies. Due to North American Industry Classification System (NAICS) designations, food processors have traditionally received IOU services through the Industrial program offering. However, there are those facilities with on-site processing that are integrated with growers and their products, as is the case with some fruit and vegetable processors (canners, dryers, and freezers), prepared food manufacturers, wineries, and water distribution customers that may be addressed by this program's offerings. To address the potential in these markets, the AEE Programs offer four statewide programs.

SCG3717 Agricultural - Energy Advisor

The Agricultural Energy Advisor (AEA) program brings together services that support customer education and participation in energy efficiency, and energy reducing opportunities and benefits, along with awareness of greenhouse gas and water conservation activities.

The seasonal application of natural gas equipment for the agricultural sector continues to be a barrier on rate of return, and timing. Sector driven flexibility from governing bodies would help engage the agricultural community by providing leniency on custom project implementation and extending their respective ISP (industry standard practice) implementation. Customers are reluctant to act and commit to energy efficiency if not persuaded by any other enforcement than

simply being energy efficient. Although air quality agencies provide a beneficial support to equipment upgrade, the proportionality between combustion efficiency and energy efficiency prevent the choosing an energy efficient option.

SCG will continue to deliver audit reports to the customer, our reporting will evolve to walk the customer through the rebate application process and provide support and follow up. SCG strives to be as a source for gas related Energy Efficiency solutions by providing: Financing options and bundled DSM offerings.

SCG3718 Agricultural - Continuous Energy Improvement

The Agricultural CEI subprogram is a consultative service that is aimed at helping agricultural customers engage in long-term, strategic energy planning. CEI helps customers better manage energy using a comprehensive approach that addresses both technical and management improvement opportunities and creates sustainable practices through a high-level commitment from executive-level management.

The newly designed CEI program known as the SEM program has launched in the Industrial sector only for 2018. It is expected that after the initial 2-year observation period, a similar approach may be initiated for an Agricultural SEM program, therefore no new customers were recruited for the Agricultural CEI program in 2018.

SCG3719 Agricultural - Calculated Incentives

The Agricultural Calculated Incentive subprogram offers incentives for customized retrofit and retro-commissioning energy efficiency projects. The program also provides comprehensive technical and design assistance.

The SoCalGas Agricultural Calculated Incentives program continues to experience barriers to finding eligible projects. Barriers to success include but are not limited to program complexity and measure reduction.

The SoCalGas Agricultural Calculated Incentives program completed a process improvement and quality control review of the application process in 2018. Control points were identified to improve project quality throughout the complex process of the custom program. SoCalGas also participated in and incorporated feedback from a review of the *ex ante* process and the Track 2 working group.

The SoCalGas Agriculture Calculated Incentives program did not meet goal. Although program complexity was addressed in the process improvement activity, it is not expected to have improved performance unless the other barriers are addressed.

SCG3720 Agricultural - Deemed Incentives

The Agricultural Deemed Incentive Program offers rebates to customers in an easy-to-use mechanism to offset the cost of off-the-shelf energy saving equipment.

The program kept focus on replacing existing EE natural gas equipment and encourages customers to move up to higher-than-standard efficiency models when purchasing additional equipment. The 2018 deemed rebate offering provided utility representatives, equipment vendors, and customers with an easy-to-use mechanism to cost-effectively subsidize and encourage adoption of mass market efficiency measures through fixed incentive amounts per unit or measure. The Program also coordinated its activities with SoCalGas account executives and Commercial and Industrial service technicians to present EE program details to customers in SoCalGas' service territory.

The program removed internal incentive caps for greenhouse curtains to encourage greater participation in the Program; much of the Program's success in 2018 can be attributed to this programmatic change.

In 2018, the Program exceeded its savings goal objectives. Overall, the deemed measure selection is small for this customer-base with much of the selection being based on electric water pumping. The most popular 2018 incentive measures in the Program were the Greenhouse Heat Curtain, Greenhouse Infrared Film and Process Broilers. SoCalGas will continue to investigate possible deemed options for gas-powered engines in 2019 and onwards.

Statewide Emerging Technologies Program

The Statewide Emerging Technologies Program (ETP) supports the IOU EE programs by identifying, screening, assessing, demonstrating, showcasing, and communicating about commercialized, energy efficient, emerging technologies prior to and after their acceptance into EE programs. Well-performing market-ready technologies are recommended for inclusion in IOU programs for use by utility customers.

ETP activities are implemented through three subprograms: the *Technology Development Support* (TDS) subprogram, which seeks to increase technology supply by educating technology developers on technical and programmatic requirements of rebate measures, the *Technology Assessment Support* (TAS) subprogram, which identifies and assesses the actual performance of emerging EE technologies with the goal of increasing the number of measures offered by EE programs, and the *Technology Introduction Support* (TIS) subprogram, which helps introduce existing energy-saving technologies that are not already widely embraced by the consumers through demonstration showcases, scaled field demonstrations, and market and behavioral studies, which expose end-users to these technologies in real-world settings. ETP may also use third parties to deploy technologies on a limited scale in the market.

Overall, ETP efforts in 2018 resulted in the completed evaluation of four potential measures for development as potential future deemed rebates/incentives: warm-mix asphalt, wall furnace electronic ignitor retrofit kit, a cookline high-efficiency retrofit, and steam tables in commercial kitchens. Positive results received in the evaluation of each measure has led to further study or recommendation for portfolio inclusion. ETP started or continued eight projects/activities in 2018.

SoCalGas encountered different barriers and problems in the implementation of the Emerging Technologies Sub-Programs which included changing expectations for technology assessments to integrated "holistic" systems, limited availability of quality customer sites & customer participation as well as technology availability and affordability to customers. Additionally, the cost effectiveness of many emerging technologies is sometimes still a challenge for acceptance into customer programs, and the current zero-net energy definition creates difficulty in determining the merit of combined heat and power (CHP), clean or renewable gas technologies. Further, allocation of ETP budget to three subprograms at beginning of cycle or year often creates a mismatch between available funds and actual project opportunities as they arise. This leads to increased use of administrative resources to manage and explain fund shifts between subprograms.

SCG3721 Emerging Technologies – Technology Development Support

The Technology Development Support (TDS) subprogram aids private industry in the development or improvement of technologies. Although product development is the domain of private industry, there are opportunities where IOUs can undertake targeted, cost-effective activities that can help private industry product development efforts. ETP's guidance can reduce innovator uncertainties, by helping them understand program needs and intake processes. ETP looks for and solicits opportunities to support EE product development, i.e. the process of taking an early-stage technology or concept and transforming it into a marketable product addressing program and customer needs.

ETP supports technology developers with several activities, including:

- Participating in industry, academic and government agency organizations that are also focused on EE technology development and delivery, and connecting those parties with developers directly, leveraging all parties' efforts.
- Periodically participating in a Technology Resource Incubator Outreach (TRIO) symposium, which provides support and networking for EE and demand response entrepreneurs, investors, and universities with the goal of providing participants the necessary information and tools with which to work with IOUs on behalf of new EE measure development and adoption.
- Developing market characterization and behavioral studies to investigate customer needs in targeted sectors, to learn customer reaction to new technologies and solutions.

SoCalGas ETP's TDS strategies employed and activities conducted in 2018 include:

- Continued assistance and design recommendations provided to a developer of a compact gas flowmeter that will then advance to field testing of the resulting product for accuracy and usability in 2018 and into 2019. SoCalGas identified additional features that would make the meter more user-friendly and expand its marketability for M&V activities and for possible integration into natural gas appliances through original manufacturers.

- Continuing funding and support of a university in the investigation and study of the viability, savings and customer behaviors associated with the use of thermal solar water heating.
- Collaborating with the Emerging Technologies Coordinating Council (ETCC) on various program activities including: SoCalGas coordinated with the ETCC on the use of its Downey, CA Energy Resource Center (ERC) for the fall 2018 ET Summit.
- Collaborated with other ETCC members on screening and following up with emerging technology ideas submitted through the ETCC website portal.
- Directly collaborating with industry and academic partners, such as but not limited to, the UC Davis Western Cooling Efficiency Center (WCEC), UC Davis Center for Water-Energy Efficiency (CWEE), the Gas Technology Institute (GTI), Electric Power Research Institute (EPRI), Energy Solutions Center (ESC), American Council for an Energy Efficient Economy (ACEEE), and Consortium for Energy Efficiency (CEE) to provide targeted support for technology development, identify new opportunities and find collaboration partners.
- Participating and engaging with industry stakeholders in CEC's Natural Gas R&D program solicitations and other public agency grant funding opportunities for energy efficient technologies. Project development, submission and support of several funded projects, including among others a multi-family residential retrofit of the central furnace/water heater with higher efficiency and lower emissions and a high efficiency industrial baking oven ribbon burner demonstration.
- Continuing an active partnership with the Los Angeles Department of Water & Power (LADWP) in a strategic approach to integrate and leverage electric and gas utility efforts to achieve CA's energy efficiency goals in the city of Los Angeles.
- Collaborating with a technology developer in testing its prototype hot water balancing valves and performing a functionality test of that product along with similar commercially available products.

SCG3722 Emerging Technologies – Technology Assessment Support

Through the Technology Assessment Support subprogram (TAS), ETP evaluates energy efficient measures that are new to the market (or underutilized for a given application) for performance claims and overall effectiveness in reducing energy consumption. A key objective of these assessments includes adoption of new measures into SoCalGas's EE portfolio, where assessment data is used to develop the required workpapers to introduce new EE measures. Historically, technology assessment is a core strength of ETP and has been critical to EE program success. ETP assessments may develop and utilize data/information from different sources including: in situ testing (customer or other field sites), laboratory testing, or paper studies used to support assessment findings.

In 2018, SoCalGas' ETP employed the following strategies and select activities for the TAS subprogram:

- Transferring assessment results to, participating with and providing guidance and input to Customer Program's Innovation Now! stage-gate process for potential

work paper including an electronic ignition replacement for standing pilots in wall furnaces a new residential water heater controller, bakery tunnel oven burner retrofit to IR and ribbon combination burners, a study of steam tables in commercial kitchens, a mixed-fuel ZNE home evaluation, and continuing support of studies of commercial horizontal drain-water heat recovery systems.

- Collaborating with ETCC utilities and out-of-state utilities to identify suitable technology assessment candidates.
- Using the statewide database to report project activities on a quarterly-basis and employing a subset of the database to share with the Consortium of Energy Efficiency Emerging Technology Catalog (CEE ETC) working group to exchange ideas and to leverage co-funding and collaboration opportunities throughout North America.
- Participating in and supporting two ET semi-annual meetings held by the ETCC, focused on agricultural, commercial, residential, and data center efficiency topics, respectively.
- Continued management of a CEC funded project to understand and improve solar thermal water heating and cost effectiveness, led by UC Davis.
- Completing lab testing of low-maintenance venture type steam traps with GTI, co-funded with Nicor Gas and Enbridge.

SCG3723 Emerging Technologies - Technology Introduction Support

Technology Introduction Support (TIS) subprogram reinforces market introduction of new and existing, but underutilized, technologies to the market, on a limited scale, through several tactics, including:

- Scaled Field Placements (SFP), which consist of placing a measure at several customer sites as a key step to gain market traction and feedback. Typically, these measures have already undergone an assessment or similar evaluation to reduce risk of failure. Monitoring activities on each scaled field placement are formulated as appropriate.
- Showcases, which are a typically a field demonstration of one or more efficient technologies that may be used for customer, designer, and industry education.
- Market and behavioral studies, designed to perform targeted research on customer behavior, decision making, and market behavior to gain both qualitative and quantitative understandings of customer perceptions and acceptance of new measures and of market readiness and potential for the new measures.

In 2018, SoCalGas' ETP employed the following strategies and select activities for the TIS subprogram:

- In collaboration with the ETCC utilities, hosted the Emerging Technologies Summit, a 1-day conference, at the Energy Resource Center with more than 200 attendants and online participants, broadcasted online with national attention.
- Performed primary and secondary research, as necessary, to gain market and technology insight for program managers.

- Collaborated with the ETCC on ETCC website management and capabilities, as the site is critical for communicating ET project results and outreach events in addition to being a portal for developers to communicate new product developments.
- Continued to collect data and present findings from a commercial near-ZNE showcase project at the Playa Vista community center. SoCalGas ET presented the 2 year and 3-year operating results at the Los Angeles Net ZERO 2018 conference, the West Coast Energy Management Congress conference, and the DOE Better Buildings Challenge Annual Building Technology Showcase.

SCG3806 Water Advanced Meter Infrastructure Pilot

The Water Energy Nexus (WEN) Shared Network AMI Pilots were established to develop and refine the identification of potential hot water leaks based on analytics of both gas and combined water and gas usage data, and to evaluate the potential benefits associated with hot water leak detection and resolution. The WEN Shared Network AMI Pilots allowed water utilities to leverage the existing SoCalGas AMI network to collect and transmit hourly water usage data, which was used in the analytics effort. Two separate Commission-regulated water utilities, San Gabriel Valley Water Company and California American Water, participated in the pilot program, and a third-party analytics vendor, Valor Water Analytics, conducted the combined water-gas analytics.

The analytics period of the AMI WEN Pilot for San Gabriel Valley Water Company was completed in Q3 of 2017. The analytics period of the California American Water WEN AMI Pilot kicked off in Q1 of 2017 and was completed on February 28, 2018. During 2018, 1,822 water MTUs (Meter Transmission Units) were installed out of total target of 1,850 and successfully transmitted data over the SoCalGas Advanced Meter Network with an average reception success rate (RSR) of 98% or better. Each pilot successfully utilized hourly water and gas data for the identification and evaluation of potential hot water leaks, identifying 9 potential hot water and anomalous gas leaks during the pilot period.

The AMI WEN Pilots achieved the following program goals:

(1) Network piggybacking: San Gabriel Valley Water Company installed 535 pilot water MTUs and successfully transmitted data over the SoCalGas AMI Network with an RSR of 98% or better. California American Water installed 1,287 pilot water MTUs and successfully transmitted data over the SoCalGas AMI Network with an average reception success rate (RSR) of 98% or better.

(2) Combined utility data analytics for hot water leak detection: Data from both San Gabriel Valley Water Company and American Water was successfully combined with utility data to create analysis for the identification and evaluation of potential hot water leaks with both water utilities. Hot water leaks were detected using that data analysis. As suggested in the final AMI WEN Pilot report, we recommend using these results with caution.

(3) Determining energy savings from reduced water loss: Reduced water loss for both pilot participants and the resulting energy savings were successfully calculated.

Statewide Codes & Standards Program

The Statewide Codes and Standards (C&S) Program saves energy on behalf of ratepayers by influencing regulatory bodies such as the California Energy Commission and the U.S. Department of Energy to strengthen energy efficiency regulations. The Program conducts efforts to increase compliance with existing C&S regulations to ensure that the State realizes the savings from new codes and standards and supports local governments that include reach codes as a climate strategy. The Program also conducts planning and coordination with IOUs statewide as well as with local utilities to optimize collaboration, and code readiness activities to prepare for future codes.

Program advocacy and compliance improvement activities extend to virtually all buildings and appliances sold in California in support of the State's ambitious climate and energy goals. Support for state and federal building codes and appliances standards continues to move California towards residential ZNE by 2020, non-residential ZNE by 2030, and the statewide goal set forth by Senate Bill 350 (SB) 350 to reduce building energy usage by 50 percent.

Key Initiatives include:

- Advocacy for new or updated sections of California's Building Energy Efficiency Standards and related ASHRAE activities;
- Advocacy for new Title 20 and DOE appliance standards, and related ENERGY STAR® activities;
- Training, tools, and resources to support compliance with existing codes and standards;
- Development of new cost effectiveness studies to support local government reach codes; and
- Long term planning and coordination activities to optimize work across California's utilities.

SCG3724 Codes & Standards - Building Codes & Compliance Advocacy

The Building Codes Advocacy subprogram primarily targets improvements to California's Building Energy Efficiency Standards (Title 24, Part 6). Title 24, Part 6 is updated by the Energy Commission on a triannual cycle. The subprogram also pursues changes to national building codes that impact California through ASHRAE and other national and international code-setting bodies. Advocacy activities include, but are not limited to, development of code enhancement proposals and participation in public rulemaking processes. The program may coordinate with or intervene in ratings organizations referenced in Title 24 (e.g., the National

Fenestration Rating Council and the Cool Roof Rating Council) for both Part 6 and Part 11 (CALGreen).

As of the issuance of D.18-05-041, SoCalGas' role as a participating program administrator of the Building Codes & Compliance Advocacy Program is to transfer funds to the statewide codes and standards lead for implementation of the statewide program.[5]

SCG3725 Codes & Standards - Appliance Standards Advocacy

The Appliance Standards Advocacy subprogram targets both state and federal standards and tests methods including improvements to Title 20 Appliance Efficiency Regulations by the Energy Commission, and improvements to federal appliance regulations and specifications by the DOE, Environmental Protection Agency (EPA) ENERGY STAR® Program, ASHRAE, and the Federal Trade Commission (FTC). Advocacy activities include developing Title 20 code enhancement proposals, participating in the Energy Commission public rulemaking process and ASHRAE committees, submitting comment letters in federal standards proceedings, and participating in direct negotiations with industry. Additionally, the program monitors state and federal legislation and intervenes, as appropriate.

As of the issuance of D.18-05-041, SoCalGas' role as a participating program administrator of the Appliance Standards Advocacy Program is to transfer funds to the statewide codes and standards lead for implementation of the statewide program.[6]

SCG3726 Codes & Standards - Compliance Improvement

The C&S Program supports increased compliance with the Building Energy Efficiency Standards and the Appliance Standards after they are adopted. Compliance improvement activities complement advocacy work by maximizing verified savings from C&S activities that are realized and persist over time. The Compliance Improvement (CI) subprogram targets market actors throughout the entire compliance chain, providing education, outreach, and technical support and resources to improve compliance with both building and appliance energy standards. Achieving satisfactory compliance with codes and standards is a crucial requirement for capturing the intended energy savings for the long-term benefit of society. High compliance rates are necessary to level the playing field for well-intentioned suppliers and contractors who are otherwise faced with a competitive disadvantage when complying with regulations. Greater compliance strengthens voluntary program baselines and provides a solid foundation for future robust advocacy efforts.

The CI subprogram launched a new, easy-to-navigate version of EnergyCodeAce.com. The training team delivered more than 191 Title 24, Part 6 standards related traditional and virtual classroom training sessions, training 4,970 people, launched a new Code & Coffee live stream series, and developed and delivered Advanced Energy Rebuild Training. Additionally, the CI Subprogram continued development of new dynamic compliance forms in close collaboration

[5] D.18-05-041, ordering paragraph 53.

[6] *Id.*

with the Energy Commission and designed a prototype of a user interface that industry will soon use to complete the new forms. The CI Team represented all of the subprogram offerings and gathered feedback at 40 industry events throughout the state.

Other compliance improvement support for Title 24, Part 6 building codes included the following:

- Delivering the traditional Residential Standards Essentials course for Plans Examiners and Building Inspectors making it far more activity-based and less lecture intensive.
- More than 191 training sessions with approximately 4,970 attendees achieving an average knowledge swing of 20% and overall satisfaction rating of 93%
- Decoding webinars covering six topics related to the 2016 Standards Each webinar was offered in three to four separate sessions.
- Outreach via Energy Code Ace by responding to more than 500 requests for assistance and participating in more than 40 industry events such as the Pacific Coast Builders Conference and the California Association of Local Building Officials Education Weeks.
- Increased the website registrants to 7,498.

Compliance improvement support for Title 20 Appliance Standards included the following:

- Continued support for the incorporation of T20 into the overall Energy Code Ace website.
- Supported the T24/T20 "master resource" which lists the equipment/products in both T20 and T24 that are required to be certified, illustrates the overlap/relationship between T24 and T20, as well as highlighting the fact that some equipment needs to be certified to the Commission for T24 compliance.
- Conducted outreach to major retailers to garner feedback on the preliminary design of a Model-Matching Tool. The objective of the tool is to enable users to quickly compare a batch of retail model numbers with model numbers listed in the Modernized Appliance Efficiency Database System (MAEDBS) to help identify products that have been certified to the California Energy Commission; only products listed in the MAEDBS are legally allowed to be sold or offered for sale in California.

The ability to identify and reach key market actors in the Title 20 standards compliance supply chain, in order to understand their unique compliance barriers, has proven to be far more complex than Title 24, Part 6. New needs assessment and outreach efforts are underway to enable application of the user-centered design process which is at the core of all Energy Code Ace offerings.

SCG3727 Codes & Standards - Reach Codes

In addition to state and national building codes, the C&S Program provides technical support to local governments that wish to adopt ordinances that exceed statewide Title 24 minimum energy efficiency requirements for new buildings, additions, or alterations (reach codes). Reach code support for local governments includes research and analysis to establish performance levels and cost effectiveness relative to Title 24 by climate zone, drafting model ordinance templates to encourage regional consistency, assistance for completing and expediting the application process required for approval by the CEC, and supporting implementation once effective. The subprogram supports local governments seeking to establish residential or commercial energy conservation ordinances for new construction and existing buildings.

Many local jurisdictions have established goals within their climate action plans to reduce energy use and greenhouse gas emissions from buildings through adopting and implementing local energy ordinances. Given the changing policy and funding priorities at the federal level, cities and counties are experiencing a greater sense of urgency for local action to meet the state's GHG emission reduction goals. This urgency has translated to a greater interest in reach codes as a path to achieve the goals. With reducing GHG emissions as the highest priority, there is a shift in focus from reducing energy use generally to specifically reducing energy use associated with carbon emissions.

2018 program work included the following:

- Completed the Santa Monica Commercial Retrofit Energy Efficiency Upgrade Strategies report that helped the City of Santa Monica help owners and tenants of commercial buildings in their city to reduce their energy usage and greenhouse gas (GHG) emissions in a cost-effective manner. The report focused on medium office, standalone retail, restaurant, and hotel building types. The report identified typical low and no-cost energy efficiency (EE) measures for reducing gas and electricity usage, as well as some capital-intensive retrofit measures.
- Provided technical support to staff at several jurisdictions, including presentation of cost-effectiveness studies, consultations on options and opportunities, review and recommendations regarding proposed ordinance structure, triggers and language.
- Supported the continued development of the LocalEnergyCodes.com web site which contains all program studies, as well as model ordinance and resolution language which jurisdiction staff may use to facilitate drafting the ordinance. Beginning from a common core helps to support consistency across jurisdictions. The web site also contains links to other providers, state agencies, and other resources.

In 2018, several reach codes were adopted by local jurisdictions and approved by the Energy Commission, based on IOU cost effectiveness studies. Approved local ordinances may be found on the Energy Commissions website:
http://www.energy.ca.gov/title24/2016standards/ordinances/

In general, reach codes have a relatively short "shelf life." Following adoption of new building codes, compliance software must be updated to reflect new building codes before cost-effective (CE) studies can be completed. Then local jurisdictions adopt reach codes based on CE studies, followed by CEC approval. By the time this work is completed, there may be only year or two before the next code becomes effective.

SCG3728 Codes & Standards - Planning Coordination

The planning element of this subprogram includes long-term planning and scenario analyses, modeling of impacts from potential C&S program activities relative to California policy goals and incentive programs, development of business and implementation plans, responses to CPUC and other data requests, and maintenance of a C&S savings database consistent with evaluation protocols.

The coordination element includes internal and external harmonization with other groups. Internal activities have traditionally included collaboration with several departments: a) incentive, training, and demand response programs, b) policy, regulatory, and corporate affairs, and c) emerging technology and product teams. More recently, as building codes have begun to incorporate distributed generation and batteries, coordination has expanded to strategy integration, distributed generation programs, and others involved in grid management.

Since Codes and Standards impacts the entire state and almost all building types, occupancy categories, and related technologies, external harmonization activities encompass: a) CPUC, California Energy Commission, Air Resources Board, b) other IOUs, municipal utilities, and utilities in other states, c) national advocates such as Appliance Standards Awareness Project (ASAP), Natural Resource Defense Council (NRDC), Northwest Energy Efficiency Alliance (NEEA), Sierra Club, American Council for and Energy-Efficient Economy (ACEEE), Earthjustice, National Consumer Law Center, Consumer Federation of America, d) representatives of various manufacturing companies and industry groups such as the Association of Home Appliance Manufacturers (AHAM), CTA, NEMA, American Gas Association (AGA), e) water utilities and local governments, and f) other parts of the compliance improvement supply chain: building inspectors, Title 24 consultants, Contractor State Licensing Board (CSLB), etc. SoCalGas continued with the extension of the partnership with the LADWP, established in 2013, to actively participate in all Codes & Standards subprograms.

The C&S program impacts EE, PV and storage technologies, utility grids, building and manufacturing industries, the compliance improvement supply chain, EE and demand response (DR) programs, local governments, state and national code setting bodies, ratings organizations, etc.

Statewide Workforce Education & Training (WE&T) Program

The Statewide WE&T Program represents a portfolio of education, training and collaborative engagement amongst the IOUs and other stakeholders involved in energy education and training.

The SoCalGas WE&T Program began transitioning to a new program structure emphasizing post-secondary energy education for the future workforce and advancing the technical skills of incumbent, experienced workers. In 2018, the new vision for WE&T was not only to achieve short-term goals as part of a longer-term strategy of developing a well-trained and appropriately skilled workforce, but to do so in support of revised resource program goals and policies.

SCG3729 Workforce Education & Training - Integrated Energy Efficiency

SoCalGas Integrated Energy Efficiency Training (IEET) continued offering trainings to draw audiences representing occupations having the most impact on the success of the SoCalGas IEET program portfolio. During 2018, the SoCalGas WE&T IEET Program conducted 133 training/ seminar sessions, 143 outreach consultations, and 276 equipment demonstrations. IEET also utilized Skype technology to conduct more robust discussions and working group sessions with market authorities and implementers.

The trainings and seminars provided a mix of existing and new courses developed to meet workforce needs. Examples include: Building Operator Certification (BOC) training for commercial building operators; Building Science classes emphasizing building design for energy efficiency and durability; collaboration with a Los Angeles based workforce development non-profit organization to provide internship opportunities in landscape and facilities maintenance at the SoCalGas ERC.

New activities and offerings implemented during 2018 that complemented the WE&T portfolio included focusing on early-stage initiatives with community colleges, community-based and apprenticeship organizations as part of a more comprehensive training strategy. SoCalGas teamed with SCE and a NorCal community college on a train-the-trainer High Performance Building Operator Professional (HPBOP) course, and also launched a course series for building operators at a local SoCal community college. SoCalGas expanded its HVAC offerings to include new HVAC/R industry classes, which included a HVAC/R New Hire & Safety curriculum module and North American Technician Excellence (NATE) certification courses and exams. SoCalGas engaged the plumbing and mechanical trades on sustainability, with presentations and hands-on training on residential and commercial water-heating in our newly designed water heating demonstration lab. The SoCalGas' WE&T team collaborated with a water-heating distributor to offer quarterly, in-depth energy efficiency training sessions on premium tankless water-heating systems.

In 2018, WE&T expanded its collaboration with emerging technology distributors to offer seminars on Ultra-Low NOx burners which contribute to meeting future mandates on carbon reduction and significantly improving air quality.

SCG3730 Statewide Workforce Education & Training – Career Connections

The WE&T Career Connections Program achieves its Energy Efficiency educational goals by working with community-based organizations, state education agencies, and educational stakeholders. In conjunction with third party vendors, the WE&T Career Connections Program provides interactive programs, educational materials, assemblies, and teacher workshops aligned with the California Department of Education's content standards, with an emphasis on energy and STEM curriculum.

The WE&T Career Connections Program continued targeting grade levels K-8 and 9-12, as well as post-secondary education. The Student Energy Actions Program reached 7,441 students, surpassing its goal. In addition, the Energize Schools Program reached 11,373 students of which 85%were categorized as Title 1 schools.

Lastly, WE&T Career Connections supported post-secondary efforts of IEET with an education and internship program. Activities included collaborating with faculty partners on energy-related curriculum, and filling internship positions to accomplish energy-focused community projects. SCG3733 Statewide Marketing, Education and OutreachIn 2018, DDB of San Francisco working as the implementer for Statewide Marketing, Education and Outreach (SW ME&O) submitted the second annual Joint Consumer Action Plan (JCAP) that outlined the objectives and customer engagement goals through March of 2019. The focus of "Year Two" efforts were primarily to continue increasing awareness of Energy Upgrade California with mass media tactics and encourage Californians to learn more about the campaign and participate in behavioral actions that contribute to greenhouse gas reduction and energy efficiency.

Since DDB's contract became active in October 2016, SoCalGas has coordinated with and supported DDB to ensure consistency between statewide marketing efforts with SoCalGas maintaining responsibility over local marketing efforts. SoCalGas also provided collaborative feedback on the DDB created 5-Year Roadmap, Annual Joint Consumer Action Plans (JCAPs), all content for the completely re-designed statewide website (energyupgradeca.org), prioritization of marketing topics for the year one JCAP and future JCAPs, and input for statewide campaign strategies and collateral.

SCG3734 Statewide IDSM Program

The Strategic Plan recognizes the integration of demand-side management (DSM) options, including EE, demand response, and distributed generation, as fundamental to achieving California's strategic energy goals. To support this initiative, the IOUs have identified IDSM as an important strategic DSM policy priority and have proposed a series of activities, pilots and other programs in response to the Strategic Plan DSM Coordination and Integration Strategy.

A Statewide IDSM Task Force (Task Force) was formed in 2010 and has continued coordinating activities that promote, in a statewide-coordinated fashion, the strategies identified in the Strategic Plan and the eight integration directives described in D.09-09-047 as follows:

1. Development of a proposed method to measure cost-effectiveness for integrated projects and programs including quantification and attribution methods that includes greenhouse gas (GHG) and water reductions benefits and the potential long-term economic and electric/gas hedging benefits.
2. Development of proposed measurement and evaluation protocols for IDSM programs and projects.
3. Review IDSM-enabling emerging technologies for potential inclusion in integrated programs.
4. Development of cross-utility standardized integrated audit tools using PG&E's developed audits as a starting point.
5. Track integration pilot programs to estimate energy savings and lessons learned and develop standard integration best practices that can be applied to all IOU programs based on pilot program evaluations and the results of additional integration promoting activities (i.e., EM&V, and cost-benefit results).
6. Develop regular reports on progress and recommendations to the CPUC.
7. Organize and oversee internal utility IDSM strategies by establishing internal Integration Teams with staff from energy efficiency, demand response, distributed generation, marketing, and delivery channels.
8. Provide feedback and recommendations for the utilities' integrated marketing campaigns including how the working group will ensure that demand response marketing programs approved as Category 9 programs are coordinated with EE integrated marketing efforts.

Statewide IOUs Strategies Implemented in 2018:

- Directives 1 & 2 - The Task Force is exploring a phased approach to developing an appropriate methodology to calculate integrated cost-effectiveness and an integrated EM&V approach for IDSM programs and projects. Integrated cost effectiveness research will establish the data needs to inform the understanding of integrated cost effectiveness for IDSM programs and projects. An integrated EM&V whitepaper is expected to show how the IOUs and the CPUC's Energy Division document and attribute energy savings and demand reduction to IDSM project implementation, using methodologies established from evaluation. In 2018, no additional reports were completed.
- Directives 3 & 5 - The Task Force tracked multiple integrated emerging technologies and reviewed various programs, projects, IDSM pilots and activities to identify integration efforts and opportunities, as well as to develop best practices.
- Directive 4 - The statewide online integrated audits team continues to coordinate to deliver a consistent online integrated audit tool that works with each IOU interface and educates customers on managing their energy use costs. The IOUs created online integrated audit tools for residential and small to medium size business customers with customized audit recommendations based on: customer profiles, operating characteristics, market sector potential, and cost-effectiveness. The IOUs also enhanced existing integrated tools to include solar-related

functionality. The IOUs continue to offer on-site integrated audits to small, medium, and large customers.

- Directive 6 - The IOUs submitted four joint quarterly reports for 2018, including an Executive Summary section, to provide Energy Division staff with updates on the eight IDSM directives. All quarterly reports were uploaded and available for viewing on the California Energy Efficiency Statistics Data Portal (EE Stats).
- Directive 7 - The Task Force held regular coordination phone calls to continue to ensure alignment across the state and discuss lessons learned.
- Directive 8 - Delivery of IDSM marketing continues to be more than just promotion of multiple programs within specific tactics like collateral or websites. It is a key component in the planning phases of integrated Marketing, Education & Outreach (ME&O) to help provide the right solutions to the right customer, at the right time. The Task Force tracks, reports and shares best practices related to local integrated marketing campaigns for residential and business customers.

SoCalGas IDSM Strategies Implemented in 2018:

Through a SPOC strategy, SoCalGas engaged 16 large multifamily portfolio owners, enrolling 7,600 units in the low-income Energy Savings Assistance Program, as well as other energy efficiency programs such as Multifamily Rebate and On-Demand Efficiency Programs. Through the SPOC, SoCalGas also enrolled the largest senior housing facility in the United States located in downtown Los Angeles into the Energy Savings Assistance Program's Multifamily Common Area Pilot. The facility received an ASHRAE Level II audit and started retrofits in 2018. SoCalGas' SPOCs also supported the implementation of demand response by promoting installation of smart thermostats in affordable housing portfolios.

SoCalGas continued to partner with other utilities to deliver IDSM solutions that encompass multiple fuel sources, (gas, electricity and water). To date, the IDSM initiative has delivered a total of 37 joint program agreements with municipal utilities that include LADWP, Riverside Public Utilities, Anaheim Public Utilities, Pasadena Water and Power, and Metropolitan Water District (MWD). SoCalGas launched new partnership programs with LADWP, Pasadena and MWD in 2018. SoCalGas' partnership with LADWP received ACEEE's 2018 Exemplary Energy Efficiency Program award.

SoCalGas continued developing and enhancing the IDSM knowledge and capabilities of its internal staff through in-person joint meetings both internally and with municipal utility partners. To promote further integration, the operation of the IDSM programs, including energy efficiency, demand response and solar thermal programs, has been consolidated under a single management group. Additionally, SoCalGas continued conducting numerous joint EE/ESA Program/Solar Thermal marketing sessions in 2018, including participation in 157 residential events and 34 business events.

SoCalGas' energy efficiency team continues to work closely with the ESA Program team to refine communication and coordination strategy to ensure that customers, particularly multifamily ones, receive comprehensive services and incentives regardless of the occupants' income qualification. The demand for program partnerships with municipal utilities from both

SoCalGas program teams and the partner utilities continued to be robust. However, this demand also needed to be balanced with the availability of program resources. Consequently, both SoCalGas and partner utilities agreed to prioritize program launches based on their impact and strategic importance.

SoCalGas continued to expand its capabilities in delivering comprehensive customer solutions via its partnership programs. For example, SoCalGas partnered with LADWP to jointly deliver energy and water efficiency kits to their mutual customers that contained devices that helped these customers save both electricity and natural gas, as well as to mitigate the impact of the drought. Also, SoCalGas continued to expand its capabilities in delivering SPOC services to multifamily portfolio owners by adding more positions.

SCG3735 Finance - On-Bill Financing

On-Bill Financing (OBF) offers interest-free, unsecured, on-the-utility-bill loans that work in conjunction with SoCalGas energy efficiency programs. It is designed primarily to facilitate the purchase and installation of qualified energy efficiency measures by non-residential customers who may lack up-front capital to invest in real and sustainable long-term energy cost reductions.

Loan terms range from up to ten years for commercial customers and up to fifteen years for government agency customers. The eligible loan amount is based on the project cost, less incentives or rebates, up to the loan maximum of the OBF product and within the loan term thresholds. Customer loans are repaid through a fixed monthly installment on their utility bills.

The OBF program continued working with SoCalGas customer account representatives and external partners to encourage customers to participate. The OBF program closely coordinated with the Local Government Partnerships and Institutional Partnerships on potential local and state government projects.

The OBF team continued to attend quarterly statewide meetings to coordinate and collaborate with IOUs to discuss program issues and opportunities.

The OBF program launched an email and direct email campaign for the On-Premise Ozone Laundry (OPOL) program using targeted marketing. The model used for this campaign is scalable and will be used for future program campaigns.

During 2018, SoCalGas implemented several changes to improve the appeal of the program to increase customer participation. These changes included increasing loan terms to 10 years for all nonresidential segments, expanding scope of the buydown option to all eligible customers, and allowing other multifamily rates eligible. SoCalGas funded nine OBF loans in 2018 which included the programs first multifamily energy efficiency project for a new high opportunity projects and programs pilot.

SCG3736 Finance - ARRA Originated Financing

The emPower Central Coast (emPower) program is an ARRA-Originated Financing Program administered by the County of Santa Barbara and jointly co-funded by PG&E, SCE, and SCG. The program is run in partnership with the Counties of Ventura and San Luis Obispo. The program was designed to encourage the implementation of comprehensive energy efficiency retrofit projects, specifically those that qualify for the statewide Home Energy Upgrade (HUP) program. emPower receives ratepayer funding to provide wrap around services to the HUP program which include; unsecured financing for single-family homeowners, free technical advice via the Energy Coach service, homeowner education and outreach and contractor workforce, education and outreach. The program provides credit enhancement funds through a loan loss reserve (LLR). It leverages ARRA and IOU funding to create a partnership between Santa Barbara, Ventura and San Luis Obispo Counties, HUP, and two local credit unions.

emPower has successfully negotiated loan financing terms that are some of the most competitive in the marketplace. The loan product is available to customers with FICO scores as low as 590 and rates start at 3.9%, lower than most HELOCs and financing offered through the statewide REEL program. emPower engaged with a total of 2,172 interested individuals in 2018. Of those interested individuals, 1,909 were attendees at 44 marketing and outreach events either hosted or participated in by emPower staff. emPower also partnered with the Community Home Energy Retrofit Program (CHERP) to conduct a grass roots effort to engage an entire community on the benefits and opportunities around energy efficiency, called the 50 Home Challenge. The focused efforts over nine months led to 50 Energy Coach visits, nine completed projects, and four closed loans.

In 2018, the program continued to encounter numerous barriers as a result of HUP program changes and closure in areas emPower serves. Communication with both homeowners and contractors was difficult due to continuation of HUP being uncertain and differed in areas served by SCE and PG&E. Additionally, with the imminent end of the emPower program, marketing and outreach, as well as most other program offerings and activities ramped down and concluded during the last quarter. emPower was notified by SCG in July that all three utilities would cease funding of the emPower program after the expiration of its existing contract. As such, staff submitted a program ramp down plan to the utilities in August 2018, and carried out its implementation through the end of the calendar year.

Program objectives were met. During 2018, the program hosted 4 contractor trainings, conducted 159 customer Energy Coach visits, projects average energy savings of 29%, one of the highest numbers for HUP projects in the state. Another emPower objective was to make low cost financing available throughout the region. The credit enhancements provided by the program continue to enable local credit unions provide affordable loans for energy improvements. The program converted 68% of loan applications into closed loans with a total value of loan applications in 2018 of $486,544 and closed loans in the amount of $325,897. The total value of closed loans to date is $2.2 million.

SCG3737 Finance - New Financing Offerings

The IOUs were authorized by Commission to develop a set of statewide financing pilot programs that offer scalable and third-party capital leveraged financing products that increase the availability of financing for underserved sectors and result in deeper energy savings. Key features of the pilots are in the form of credit enhancements and on-bill repayment (OBR) to attract private capital support for financing energy improvement projects. Ratepayer-supported credit enhancements will be made available to participating lenders offering financial products to qualified single family residential, multifamily, and small business customers. The credit enhancements provide additional security to participating lenders to mitigate loan default which is expected to result in more attractive borrowing terms for the customer.

The California Hub for Energy Efficiency (CHEEF) is administered by the California Alternative Energy and Advance Transportation Financing Authority (CAEATFA), a state agency in the California State Treasurer's Office. CAEATFA is responsible for designing and developing program regulations for the Financing Pilots through an existing public rulemaking process with support from the IOUs. The Residential Energy Efficiency Loan (REEL) program launched July 2016 for single family residential customers. The remaining pilots including the small business and affordable multifamily pilots are scheduled to launch during 2019.

SoCalGas, as the lead utility program administrator, along with the other IOUs continued to support CAEATFA in the implementation of REEL and the development of the other financing pilots. During 2018, SoCalGas and the IOUs continued to focus on local marketing of the REEL program by identifying cost-effective and integrated ME&O options for both contractors and consumers. As a result of this effort, CAEATFA enrolled 213 new REEL loans with more than $3.96m in funding through seven participating lenders. At the end of 2018, REEL had 293 participating contractors and approximately 58 contractors completing at least one project.

SCG3803 Finance - California Hub for EE Financing

The CHEEF was established to design and implement new statewide financing pilots targeting the single family residential, multifamily, small business, and non-residential sectors. The CHEEF infrastructure coordinates the flow of third-party private capital to fund energy improvements, manage the availability of project, loan, and energy consumption data, and ensure a streamlined process for program participants. Key components of the CHEEF infrastructure includes a Master Servicer responsible for the day-to-day administrative operations of the program, a trustee bank responsible for holding and transferring ratepayer funds used for credit enhancements, a contractor manager that provides quality assurance and control (QA/QC) for finance-only projects, and data manager that will make anonymized and aggregated program data available to the public.

In D.13-09-044, the Commission requested the CAEATFA to take on the role as CHEEF manager. CAEATFA is responsible for administering the CHEEF which includes developing program regulations for the Financing Pilots through a public rulemaking process, operationalizing program processes and forms, and managing outreach efforts to both contractors

and financial institutions. SoCalGas is the lead utility for the Financing Pilots Program and lead contract administrator for the CHEEF agreement.

During 2018, IOUs assisted CAEATFA with ongoing development of the commercial and multifamily program regulations. CAEATFA received state approval of the Small Business Energy Efficiency Financing (SBF) Program regulations in December 2018. CAEATFA and the IOUs worked on a plan to integrate SBF into IOU programs. CAEATFA and the IOUs also worked on finalizing clean-up changes to the data exchange protocol for on-bill repayment with plans to complete testing in 2019. SoCalGas remained actively involved in local marketing of the REEL program to contractors and customers emphasizing integration with existing programs, engaged in the coordination meetings with CAEATFA and Energy Division staff, and facilitated collaborative efforts with the IOUs and marketing implementer. A new revamped GoGreenFinancing website co-branded by the IOUs and the State of California was developed and launched in early 2018. SoCalGas continued to manage the CHEEF agreement including administration of quarterly invoicing and reporting activities to the Commission and IOUs.

Institutional Partnerships

Institutional Partnerships are designed to create dynamic and symbiotic working relationships between IOUs, state or local governments and agencies or educational institutions. The objective is to reduce energy usage through facility and equipment improvements, share best practices, and provide education and training to key personnel. In 2018, the Institutional Partnerships addressed programmatic challenges impacting energy efficiency projects at the campuses and state facilities as well as providing a concentrated effort to support shared energy efficiency, ZNE, and environmental goals. As described in the energy efficiency business plan, Institutional Partnerships will be considered part of the Public Sector Program portfolio. Through the energy efficiency Business Planning process, SoCalGas worked with partners to engage them in identification of challenges facing higher education and state agencies, as well as included them in the development of Public Sector strategies.

SCG3738 Institutional Partnership - California Department of Corrections Partnership

The California Department of Corrections and Rehabilitation/Investor Owned Utility (CDCR/IOU) partnership is a customized statewide energy efficiency partnership program that accomplishes immediate, long-term peak energy demand savings and establishes a permanent framework for sustainable, long-term comprehensive energy management programs at CDCR institutions served by California's four large IOUs.

This program capitalizes on the vast opportunities for efficiency improvements and utilizes the resources and expertise of CDCR and IOU staff to ensure a successful and cost-effective program that meets all objectives of the CPUC. The program also leverages the existing contractual relationship between CDCR and Energy Service Companies (ESCOs) to develop and implement energy projects in CDCR facilities.

In 2018, CDCR continued implementing retrofit projects and performing Investment Grade Audits. The IOUs and the Program Administration Manger (PAM) supported development of the new projects, ensuring that they reached maximum efficiency and incentive potential. To support more project development, the IOUs performed energy audits of a subset of CDCR's facilities, which CDCR is using to prioritize the next wave of projects.

The program continued the effort to ensure new construction projects and gas-saving, water conservation projects were clearly tracked and proactively managed. The IOUs provided ongoing training to the new ESCO pool around changes to IOU financing options (enhanced incentives, rebates and OBF) and processes. Regular management team meetings (every 4 weeks) and executive team meetings (quarterly) have been key to identifying and managing projects, and to proactively addressing any challenges the program may have faced.

In 2018, CDCR continued to use over half of the energy consumed by state agencies under the Governor's executive authority. Though CDCR's budget for implementing energy efficiency projects is minimal, through the CDCR-IOU energy efficiency partnership program efficiency projects can be identified and implemented through the IOU core and On Bill Financing Programs. On Bill Financing has been and remains the primary source of funding. In select instances, On Bill Financing is supplemented by either Special Repairs Project funding or Department of General Service's GS $mart program.

Funding limitations of $1-$2 million per site and/or utility account creates barriers; CDCR has had to limit the scope of energy efficiency projects to remain under this cap. The IOUs are working with CDCR and the Commission to raise this limit where feasible.

2018 program objectives were met. The Partnership provided ongoing outreach and education to institutions, ESCOs and stakeholders and continues to improve program processes and procedures. However, CDCR did not complete projects in SoCalGas territory in 2018, however, based on the master schedule and prioritization of energy efficiency audits used as a planning tool for future energy efficiency projects, there are several projects in the pipeline for 2019.

SCG3739 Institutional Partnership - California Community Colleges Partnership

The California Community Colleges/Investor Owned Utility (CCC/IOU) Energy Efficiency Partnership is a unique, statewide program to achieve immediate and long-term energy savings and peak demand reduction within California's higher education system. The statewide incentive funding for the 2018 program year was utilized to maintain the Partnership program processes and framework established in previous program cycles for sustainable, comprehensive energy management at campuses served by California's four Investor Owned Utilities.

The Partnership participated in quarterly Campus Forums in both Northern and Southern California, serving as a venue for districts to share successes and strategies for common challenges faced for facilities management and energy efficiency. The Partnership team

presented at these Forums, providing time-sensitive updates on new technologies, information on program implementation, and direct assistance to districts in attendance.

The CCC/IOU Partnership has provided extensive outreach and technical support to the districts within the California Community College (CCC) system in support of their efforts to identify, develop, and implement projects funded through Proposition 39, the California Clean Energy Jobs Act of 2012. The Proposition 39 Program continues to be very successful with over 940 energy projects funded (approximately 566 of which were installed and closed out by the end of 2018).

In 2018, due to the reduction in qualifying project types and savings achieved by the program, the IOUs right sized program budgets, resulting in roughly a 30% reduction in program budget. This forced the partnership to strategically deploy their outreach and support resources to support those efforts which would lead directly to program savings and cut back on other tangential support services. Most technical support efforts were reduced to closing out existing projects to meet the IOUs year end and Prop 39 goals.

The Partnership developed key strategies to manage budget limitations and still provide support to Community Colleges for both Proposition 39 close-out as well as additional Partnership projects to achieve SCG's therm saving goals, including focused outreached conference participation to those that provided the biggest impact to community college districts, leveraged college organizations, such as the Association of College Business Officers (ACBO) Faculties Task Force, and the Nor Cal Facilities Summit, and So Cal Facilities Officers organizations to assist with project close-out communications and outreach and reducing Management Team meetings to quarterly, and twice a year conducted combined Executive-Management Team meetings to reduce expenses

SCG3740 Institutional Partnership - UC/CSU/IOU Partnership

The UC/CSU/Utility Energy Efficiency Partnership is a unique, statewide program which includes California's four investor owned utilities, PG&E, SCE, SoCalGas, and SDG&E, as well as the LADWP, in partnership with the University of California (UC) and the California State University (CSU). The program generates energy savings through the identification and implementation of energy efficiency projects and through training and education to support those projects. The Partnership consists of three main project types: retrofit, commissioning, and new construction. Since its establishment in 2004, the Partnership has provided approximately 65 MW demand reduction and delivers approximately and 470 million kWh/yr and 25 million therms/yr in energy savings.

The Management Team meets every three weeks to conduct business at the operational level and the Executive Team meets quarterly to discuss overall program status and policy issues. The Partnership also has a Training and Education Team that organizes various energy efficiency trainings targeted to university campuses. In addition to representatives from each Utility, the University of California Office of the President and California State University Chancellor's Office each have members on all three program management teams. Inclusion of all Partnership stakeholders at the various management levels provides the UC and CSU campuses with support

in their efforts to implement energy efficiency projects. A Program Administrative Manager (PAM) organizes and facilitates team activities, works with individual stakeholders, actively tracks project savings and schedule data in a web-based tracking tool and creates regular reports to show overall status of the program and forecasts relative to goals.

The 2018 administrative successes include: (1) The IOUs finalized their Public Sector Business Planning activities with stakeholders and the CPUC. The Business Plans provide a description and analysis of Public Sector customers, identify barriers faced by these institutions, and address intervention strategies for overcoming these barriers; (2) With the assistance and input from of the University of California, the IOUs continued implementation and development of various program offerings and HOPPs, including a whole building programs consistent with SB350, AB802 and AB1150 to demonstrate measured savings against existing conditions, pay for performance, and comprehensive whole-building approach to building efficiency; (3) Partnership Teams worked together to gather input from UC and CSU regarding the statewide approach to be implemented in 2020; (4) A new UC systemwide energy policy was implemented with the help of the Partnership, requiring a 2% annual energy reductions per campus. Additionally, an EUI Dashboard was created to track UC campuses progress towards meeting this requirement; and (5) The PAM began developing a new, more cost effective and efficient project tracking database for the Partnership to replace the existing database.

The 2018 Program successes include: (1) Significant volume of energy efficiency projects delivered in 2018 and underway for future years; (2) Completed 52 Retrofit, MBCx and New Construction projects at 16 different UC and CSU campuses (inclusive of UC Med Centers); (3) Training, Education and Outreach; (4) An Energy Managers' Meeting, hosted by the Partnership as a post-conference workshop of the California Higher Education Sustainability Conference provided an interactive session for UC and CSU energy managers to share best practices, lessons learned, and other practical advice; (5) The Training and Education scholarship program continued, granting over $50,000 in funding to UC and CSU campus to attend the EE related training(s) of their choice, as approved by the Partnership; (6) A highlight video and web-based case studies were developed for the 2018 Best Practice Awards; (7) The Training and Education Team held a workshop at UC Santa Cruz, focusing on unpacking how to use whole-building energy performance targets throughout a buildings design, construction and operations; (8) Two workshops were held at Cal Poly San Luis Obispo and UCSF, introducing energy managers to the basic fundamentals of SkySpark, a building analytics software widely used across both UC and CSU systems; (9) Two workshops were held at UC Irvine and UCSF, comparing and exploring new developments in CALGreen and USGBC LEEDv4; and (10) the Partnership hosted two webinars for Energy Manager's to present current projects and initiatives taking place on their campuses.

Some campuses stopped pursuing certain projects due to incentive cuts resulting from non-utility supply hourly analysis. In addition, current Commission policy requiring energy savings above code (Title 24) and industry standard practice baselines is not always aligned with determining project financial impact to support project financing or translating savings to carbon reductions to meet university carbon goals. MBCx offerings at the various IOUs were discontinued in 2016, limiting project opportunities for UC and CSU, leaving a significant gap from what was a practical and popular delivery method for campuses. Additionally, many custom measures were

moved to deemed, decreasing the claimable energy savings and incentives received by universities.

The Partnership focused widely on efforts surrounding NMEC in compliance with Assembly Bill 802. SCE and SoCalGas continued their whole building HOPPs program, identifying new project opportunities and supporting the whole building project in progress at UC Santa Barbara. PG&E also took steps to begin implementing a similar program in their territory.

In addition to NMEC projects, UC and CSU focused on addressing barriers to energy efficiency, continuing a second phase of UC's Million Lamps Challenge, and beginning work on a CEC Grant to develop a Master Enabling Agreement for energy efficiency at UC and CSU campuses. In 2018, UC also developed and implemented a new systemwide energy policy which encourages efficiency by requiring campuses to reduce their energy consumption by 2% each year.

The Partnership determined several programmatic changes which will take effect in the 2019 cycle. Beginning in 2019, Training and Education Programs will be administered directly through the IOU energy centers, rather than through the Partnership. A new and more cost-effective database will replace the current Partnership P6 database in 2019. Additionally, Partnership Teams will meet on a more limited basis as the program prepares to shift to statewide administration in 2020.

Overall, the UC/CSU/Utility Partnership made progress towards the 2018 program cycle goals, totaling over 1,750 kW (~99% of goal), 12.8 million kWh (~59% of goal), approximately 143,000 therms (~17% of goal), and providing over $2.7 million in incentives (~43% of goal).

Additionally, the integration of LADWP into the Partnership and the resulting collaboration between Investor Owned and Public Owned Utilities provides a working model for the Public Sector in California to deliver truly comprehensive energy efficiency programs.

SCG3741 Institutional Partnership - State of California/IOU Partnership

The State of California Investor Owned Utility (IOU) Partnership is a Statewide program designed to achieve long-term energy and peak demand savings and establish a permanent framework for sustainable, comprehensive energy management programs at state facilities served by California's IOUs.

The State of California Partnership is a continual and collaborative effort to support DGS to manage projects for Departments without contracting authority. The State/IOU Partnership Program Administration Manager (PAM) continues to coordinate between the IOUs and the DGS through regular meetings to ensure that project documentation is shared as needed, projects are tracked, project momentum is maintained, new project approaches are identified, and customer concerns/support items are addressed in a coherent and sympathetic fashion.

In 2018, the IOUs and DGS spearheaded a working group to address Savings by Design (SBD) participation barriers for DGS buildings. The working group supported this effort by developing a flow chart to better understand the DGS procurement process. The group reviewed and updated DGS contract language, reviewed established incentive structures and defined alternative payment solutions to better align with DGS systems. The Partnership will track an SBD project currently in progress to use as a test case for implementing solutions developed by the working group.

The IOUs continued to work with the State to prioritize agencies that may benefit from ESCO work, both for large and pooled small buildings. The Partnership has provided extensive outreach and technical support to Agencies including California Highway Patrol (CHP), Department of Motor Vehicles (DMV), and Department of Parks and Recreation (DPR). Outreach to these agencies yielded significant energy savings and created a robust pipeline of future projects.

The IOUs continued attending the Sustainable Building Working Group meetings, a State of California working group that consists of agency sustainability managers, with the task of planning and implementing all aspects of B-18-12, the Governor's Executive Order. The IOUs attend in a supporting role to ensure that agency needs regarding energy data for benchmarking are met. The IOUs continue to use this platform for agency outreach.

DGS has developed strategies beyond using Energy Service Companies (ESCOs) to reduce procurement barriers and encourage faster completion timelines at several facilities. DGS works with the IOUs to quickly complete less-comprehensive projects that primarily look at lighting and controls and DGS is developing agreements so that the utility companies can implement ESCO projects at DGS facilities through the IOUs' own ESCO programs.

DGS uses all financing mechanisms available for energy savings projects: operations budgets, revolving loan funds, third-party financing, on-bill financing and on-bill repayment. One challenge of the existing OBF program is a funding limitation of $1-$2 million per site and/or utility account, DGS has had to limit the scope of energy efficiency projects to remain under this cap. The IOUs are working with DGS and the Commission to raise this limit where feasible.

Through training and outreach activities, the State/IOU Partnership increased awareness and understanding of Statewide Program offerings to additional State agencies. DGS did not complete projects in SoCalGas territory in 2018, however, based on the master schedule and prioritization of energy efficiency audits, there are several DGS projects in the pipeline for 2019.

Local Government Partnerships

SoCalGas' Local Government Partnerships (LGP) are unique, complex and multi-dimensional partnerships with select local government customers. Local governments are a distinct customer segment that operate with their own unique challenges and needs related to energy efficiency. Local governments have a unique role as leaders in their communities and can play a role as a delivery channel to help share core IOU programs to the communities and businesses they serve. Increasingly, local governments are interpreting their responsibility for community well-being to

include reducing GHG emissions, increasing renewable energy usage, protecting air quality, creating green jobs, and making the community more livable and sustainable.

Local Government Partnerships are designed to serve and support local governments by increasing energy efficiency in municipal facilities, provide programs and services to local communities that can help them reduce both operating costs, and greenhouse gas emission levels through energy-efficiency. In 2018, SoCalGas supported Partnerships in achieving their energy efficiency and climate goals. Through the energy efficiency Business Planning process, SoCalGas worked with partners to engage them in the identification of challenges faced by local governments, as well as included them in the development of Public Sector strategies. As of 2018, the Local Government Partnerships are considered part of the Public Sector Program portfolio.

SCG3742 LGP-LA County Partnership

The County of Los Angeles Partnership supports the energy reduction and environmental initiatives described in the Los Angeles County Energy and Environmental Plan, adopted in 2008, and the objectives of the Strategic Plan. EE projects are focused on County-owned municipal buildings, consisting of lighting, HVAC, Retro-Commissioning, Steam Boilers, and Savings-By-Design new construction projects at each of the 38 County departments served by Energy Management (County Internal Services Department). Additional efforts with the County Office of Sustainability include program support and coordination for Energy Upgrade California, and Strategic Plan Solicitation activities that expand the County's Enterprise Energy Management Information System (EEMIS), allowing Los Angeles County to receive and analyze participating City data to help the city better manage their energy usage and support the identification of EE opportunities.

The Partnership collaborated with Los Angeles County Internal Services Department (ISD) to capitalize on EE opportunities by working with representatives from the 38 County Departments served by ISD for energy management services. Moreover, the Partnership interacted with ISD, Public Works, Parks and Recreation, Metropolitan Department of Transportation, and Sheriff's Department on strategies to develop energy savings opportunities and strategic implementation forecasts.

The Partnership coordinated with Los Angeles County for completing Retro-Commissioning projects at six facilities and EE retrofits throughout county facilities, successfully contributing therms to the core rebate and incentive programs.

The Partnership continued to provide data to Los Angeles County Enterprise Energy Management Information System (EEMIS) to support local governments enrolled in the County offering. Additionally, the Partnership supported Los Angeles County's pursuit of operational effectiveness, fiscal responsibility and accountability through EE programs.

SCG3743 LGP-Kern Energy Watch Partnership

Kern Energy Watch (KEW) Partnership brings together three utilities, PG&E SCE, and SoCalGas with twelve local governments to improve energy efficiency throughout Kern County. The County of Kern serves as the implementer and coordinates the energy efficiency efforts of the County of Kern, and the cities of Arvin, Bakersfield, California City, Delano, Maricopa, McFarland, Ridgecrest, Shafter, Taft, Tehachapi, and Wasco.

In 2018 the Partnership continued its focus on providing useful data to partners from which they could begin to make business decisions. Monthly meetings were held to update partners on program updates.

SoCalGas held three All Kern Partnership meetings. These meetings provide an opportunity for partners to receive updated information on IOU programs, statewide legislation that may impact them, as well as an opportunity for networking with other municipality representatives.

Participation and staff turnover have been the major barriers in the Partnership. Also, due to budget constraints, EE has taken a back seat to higher priorities in some of the municipalities. Having continued dialogue and providing them with free or low-cost services such as benchmarking and direct install have been ways of keeping them engaged throughout the year.

SCG3744 LGP-Riverside County Partnership

In 2010, the County of Riverside (County) formed a "Partnership" with SCE and SoCalGas which is intended to assist the County in achieving its green policy initiatives and formulate an integrated approach to EE. This collaborative effort aims to build an infrastructure that would efficiently deliver cost effective EE projects to reduce the "carbon footprint" created by County facilities.

The Partnership improves EE in the County's municipal facilities, leverages utility resources, customized to the Counties unique needs, to advance EE in the partners facilities. The Partnership also supports the County in meeting CO2 reduction requirement efforts of AB32, as well as contributing toward meeting CPUC energy savings goals and objectives.

The Partnership held bi-monthly Partnership meetings to discuss program status, project tracking and overall program implementation and coordination issues. In addition, the partnership began working on a website that was completed in 2018 to showcase partnership services and offerings to a wider audience.

The Partnership was challenged to support the County with many energy efficiency retrofits because the County is determining their strategic direction and whether to implement projects through an ESCO. Due to the loss of third-party programs the county successfully used in the past, it has been difficult for them to launch new EE projects. Although the therm program objectives were not met, the partnership continued to engage the county in various activities to help with identifying future projects.

SCG3745 LGP-San Bernardino County Partnership

SoCalGas joined the San Bernardino County Partnership in 2010 which is a continuation of the 2009 partnership between SCE and the County of San Bernardino. The Partnership assists the County in achieving its green policy initiatives to formulate an integrated approach to EE. This will be a collaborative effort with the aim to build an infrastructure that would efficiently deliver cost effective EE projects thus reducing the "carbon footprint" created by County facilities. County facilities are targeted for retrofits, retro-commissioning (RCx) and new construction elements.

The partnership held monthly Management Team meetings to discuss program status, project tracking and overall program implementation and coordination issues. In addition, meetings were held regularly with project managers from various County departments to identify opportunities and provide information available on SoCalGas resources and other core program offerings. Leveraging County management staff from various departments including Special Districts, Sheriff, Internal Services, Library, Fire, and Project Managers in Real Estate Services – Project Management Division, has proven to be an effective means in identifying opportunities that would have not otherwise been supported by SCE or SoCalGas programs.

While SoCalGas didn't meet its therm savings targets for this Partnership, the program continued to engage actively with the County to identify potential future projects.

SCG3746 LGP-Santa Barbara County Partnership

There are two distinct partnerships for Santa Barbara County- South County and North County.

South County Energy Efficiency Partnership
The South County Energy Efficiency Partnership includes SCE, SoCalGas, and municipal governments within the County of Santa Barbara -- including Santa Barbara County and the cities of Santa Barbara, Goleta, and Carpinteria. The program generates energy savings through identification of municipal energy efficiency projects, education and training, and marketing and outreach. Cities complete retrofits of their own facilities and conduct community sweeps as well as outreach to residential and business communities to increase participation in core programs. The partnership acts as a portal for all energy offerings including Low income, CARE, Demand Response, Self-Generation and California Solar Initiative and demand response programs are included. The Partnership provides energy information to all market segments, identifies projects for municipal retrofits, and funnels customers to existing energy efficiency programs. A local non-profit, the Community Environmental Council, provides administrative and programmatic support to the Partners.

Throughout 2018, SCEEP continued to drive city leaders, residents and businesses toward energy efficiency actions. SCEEP partners participated in several community exhibits and outreach events in 2018. Events included participation in the Santa Barbara Earth Day Festival, with approximately 32,000 attendees, sponsorship and attendance at The Central Coast Sustainability Summit at UCSB in October, Planning and attendance of the Local Government Commission Statewide Energy Efficiency Collaborative (SEEC) conference in June, and hosted

a SCEEP Awards Luncheon held in May. SCEEP Partners met once in 2018 with the Ventura Regional Energy Alliance (VCREA) to share best practices/lessons learned between partnerships. SCEEP continued to partner with the countywide Green Business program, a voluntary certification program supported by SCEEP. The Partnership assisted the City of Santa Barbara in auditing all of their facilities in 2018.

The program is falling short of expectations because of serious difficulties to identify and complete energy efficiency projects.

There were no significant changes to the partnership during this year. SCEEP continued to promote energy savings projects with our community events, programs, and public agencies.

The therm savings target for this partnership program was not met in 2018.

North Santa Barbara Energy Watch Partnership

The Santa Barbara County Energy Watch Partnership is a joint effort between PG&E, SoCalGas, and the Santa Maria Valley Chamber of Commerce. The Partnership's participating municipalities are Buellton, Solvang, Guadalupe, Santa Maria and the County of Santa Barbara. The program generates energy savings through identification of municipal EE projects and Direct Install projects for businesses. The program also provides education, training, marketing and outreach for all Utility Core Programs within Energy Efficiency and Customer Assistance.

Notable 2018 Partnership program successes include:

- Developing a comprehensive Program Management Plan for 2018 and met most of its goals and objectives.
- Staples Energy provided 47 Direct Install projects to businesses, agencies and municipalities in the Partnership area.
- The Santa Barbara County Energy Watch Partnership met with the municipalities of Buellton, Solvang, Guadalupe and Santa Maria to discuss opportunities for energy efficiency, utility programs and available resources. These meetings included the City Manager, Public Works and Planning from each municipality.
- The Santa Barbara Partnership offered assistance to the City of Santa Maria in updating the Energy Chapter of the Resource Management Element of the General Plan. This will be accomplished with a full General Plan update, which will take about four years to accomplish. The City of Santa Maria is also undergoing an extensive Turnkey Energy Efficiency Project through PG&E.
- Santa Barbara Partnership met with the Mission Community Services District to provide information, energy efficiency opportunities and resources. PG&E followed up with coordinating a full-facility energy audit.
- Santa Barbara Partnership coordinated an outreach event in the small, hard-to-reach and disadvantaged community of Guadalupe, in collaboration with the City of Guadalupe at Guadalupe City Hall.

1. Residents were updated with program details from the utility companies and third-party programs that provide assistance. They were also provided information from the City of Guadalupe.
2. In coordination with the event, the Energy Watch Partnership sent mailers to every business. The packet included program details for SoCalGas and PG&E as well as Partnership details and information on Staples Energy. The packet included a letter from the City Administrator urging energy efficiency.

- Santa Barbara Partnership's non-profit grant program assisted agencies within the region to become more energy efficient. These included: (1) a Good Samaritan Shelter in the unincorporated area near Lompoc, (2) Circle V Ranch, which provides a camping experience for disadvantaged youth near Lake Cachuma, and (3) Santa Maria Valley Chamber of Commerce.
- Santa Barbara Partnership Administrator, Program Manager, and representatives from PG&E and SoCalGas received Proclamations and Resolutions in conjunction with Energy Awareness Month from the City Councils of Santa Maria and Guadalupe, and from the Santa Barbara County Board of Supervisors. These presentations included an update on Partnership activities.
- The Partnership had a newspaper presence with articles and success stories about the Partnership throughout the year. These were published in the Chamber Connection and as inserts in the Santa Maria Times and was delivered to 11,000 Santa Maria Residences and mailed to 850 Chamber of Commerce Members.
- The Santa Barbara County Energy Watch Partnership made presentations and speeches to organizations, including Rotary Clubs and Kiwanis Clubs.
- Partnership continued its collaboration with the Santa Barbara County Green Business Program and other agencies and organizations to extend the outreach message of energy and sustainability to our Partnership's communities.
- The Partnership had a sponsorship presence and made presentations at events, including the Santa Maria Chamber of Commerce Annual Trade Show, and the Solvang Grow Your Community Expo.

Benchmarking and Planning with cities and municipalities has proven difficult to accomplish, mostly because of municipal budgets, staff and priorities. The Partnership continued reengaging municipalities for 2018 and offering assistance through Civic Spark and other programs.

This Partnership expanded its relationships with other agencies and local officials, and continued outreach to small, hard to reach communities.

SCG3747 LGP-South Bay Cities Partnership

The South Bay Cities Council of Governments (SBCCOG) EE Partnership Program provides integrated technical and financial assistance to help the South Bay Cities effectively lead their communities to increase energy efficiency, reduce greenhouse gas emissions, increase renewable energy usage, protect air quality, and ensure that their communities are more livable and sustainable. The Program provides a performance-based opportunity from SCE and access to all

SoCalGas core programs and incentives for Member Cities to increase energy efficiency in local government facilities and their communities through energy saving actions.

There were no barriers, problems, or program changes for 2018. The SBCCOG continues to be concerned about the future of partnership programs, the availability of municipal incentives, and funding.

The Partnership conducted marketing and outreach at 45 community events, seven business expos, twelve residential workshops, and three employee events.

SCG3748 LGP-San Luis Obispo County Partnership

San Luis Obispo County Energy Watch (SLOEW) is a partnership amongst the County of San Luis Obispo, PG&E, SoCalGas, and participating Cities and Special Districts. SLOEW is a comprehensive program that provides information and energy management services to targeted customers regarding energy use and cost associated with facilities and infrastructure. This information is used to identify, finance, and implement energy and cost saving EE measures, as well as track building performance. The mission of the SLOEW Partnership is to contribute to a vibrant and resilient San Luis Obispo County through reduced energy cost, use, and demand, and decreased greenhouse gas emissions. The SLOEW Partnership's vision is to be the primary and trusted resource addressing energy and climate challenges in San Luis Obispo County. In 2018, SLOEW was engaged in two strategic plan activities: benchmarking and climate action planning.

SLOEW implements five elements, three of which focus on energy management targeting specific local government agencies. SLOEW staff work with agency staff to inventory and benchmark the energy use and cost of building facilities and utility infrastructure on a bi-annual basis. In addition, SLOEW implements a climate services program described below and a Direct Install program (with PG&E).

In 2018, SLOEW worked with many of the cities in the region to identify needs for targeted audits and energy efficiency projects including Morro Bay, Arroyo Grande, San Luis Obispo, and Paso Robles. In October, SLOEW co-hosted the Central California Energy Workshop with the San Juaquin Valley Clean Energy Organization, at the Veterans Hall in San Luis Obispo. In addition, SLOEW partnered with CivicSpark, an AmeriCorp fellowship program that increases the capacity of local government agencies to address climate change in California, to inventory and benchmark the energy use and cost of all special district building facilities and utility infrastructure. These reports were presented to various stakeholders at seven cities in the County in April 2018.

SLOEW helped the County of San Luis Obispo implement a second phase of its Sustainable Solutions Turnkey project. This $1M project included lighting and mechanical upgrades and will save the County approximately $75K per year. In addition, SLOEW staff assisted the County develop a Revolving Energy Loan Fund to help finance future energy efficiency projects. SLOEW monitored and reported greenhouse gas emissions through 2015 (and updated the 2006 baseline), as well as progress implementing reduction measures in the County's EnergyWise

Plan. Staff also supported the City of San Luis Obispo's effort to update their GHG inventory and progress towards reduction targets.

Working in a territory with two different utilities continues to be challenging; however, SoCalGas and PG&E continue to work on getting consistency in program offerings as well as interpretation of CPUC policies. A reoccurring challenge are the facility size and usage in these rural areas were program guidelines and ever-changing Code & ISP reduce participation in IOU EE programs.

In Q4 of 2018, the County of San Luis Obispo decided to discontinue its role as implementer of the SLOEW Partnership, via signed resolution by the Board of Supervisors. SLOEW will be transitioned to San Juaquin Valley Clean Energy Organization (SJVCEO) effective January 1, 2019.

SLOEW was able to successfully continue services for partnering cities and was commended on their quarterly Regional Energy Meetings. The SLOEW efforts in SP activities, projects and development activities was prevalent as the County and City obtained Beacon Awards.

SCG3749 LGP–San Joaquin Valley Partnership

The Valley Innovative Energy Watch (VIEW) is a LGP between PG&E, SCE, SoCalGas and local governments in Kings and Tulare counties (Kings County, cities of Avenal, Corcoran, Hanford, and Lemoore; Tulare County, cities of Dinuba, Farmersville, Lindsay, Porterville, Tulare, Visalia, and Woodlake). This partnership is implemented by the San Joaquin Valley Clean Energy Organization (SJVCEO).

The VIEW Partnership identifies opportunities for improved EE in municipal infrastructure; offers customized incentives for municipal projects; conducts EE trainings; hosts and participates in outreach events to drive participation in core utility programs; and supports the California Long Term Energy Efficiency Strategic Plan. The Partnership supports peer best practice sharing through the Peer to Peer Working Group (P2P), the Rural Hard to Reach Local Government Partnerships' Working Group (RHTR), the San Joaquin Valley Energy Watch Collaborative (SJVEWC), and the California Energy Efficiency Coordinating Council (CAEECC) as a general member, and on the Public Sector and Cross Cutting subcommittees.

Notable 2018 program successes include: (1) Holding three quarterly VIEW Partnership meetings in addition to eight Lunch & Learns with VIEW Partner cities, (2) a $10,000 grant award from SoCalGas Environmental Champions to organize and host Gas Camp assemblies in VIEW territory schools was implemented successfully, (3) Participating in twelve P2P monthly member calls/in person meetings, and (4) Hosting seven SJVEWC meetings.

SCG3750 LGP-Orange County Partnership

The Orange County Cities Energy Efficiency Partnership Program includes the cities of Huntington Beach, Westminster, Fountain Valley, Costa Mesa, Newport Beach, City of Irvine and the City of Santa Ana as well as SCE and SoCalGas. In addition to identifying and

implementing EE retrofits for municipal facilities, this Partnership also funds community education, marketing, and outreach efforts to create awareness and connect residents and businesses with information and opportunities to take energy actions. In addition, the partnership goals include strategic plan activities, such as climate action planning, updating the Energy Action Plans, code compliance, and reach codes. The cities are supported in creating and accomplishing long term sustainability goals.

Outreach events were held in Santa Ana/Party for the Planet (5/20); Newport Beach/Green on Green Eco Expo (9/8); Irvine/Global Village Festival (9/22); Huntington Beach/Senior Saturday Community Festival; and Fountain Valley/13th Annual Sr. Expo (6/21).

Some of the barriers faced were (1) the elimination and the limitation of measures offered by the utilities; (2) the inability to add motivated cities or remove inactive cities to the partnerships; (3) the length of time it takes for approval to update the Energy Action Plans.

SCG3751 LGP-SEEC Partnership

The Statewide Energy Efficiency Collaborative (SEE) is an alliance between three statewide non-profit organizations (Local Government Commission (LGC), ICLEI for Local Governments, and the Institute for Local Governments (ILG). SEEC catalyzes local government action toward meeting California's Long-Term Strategic Plan goals via technical support, coaching, education, peer-network development, and recognition.

SEEC has achieved many successes in each of the categories we service, which include 201 new ClearPath GHG Inventories, 24 Climate Action Plan Cohort participants, 29 GHG Inventory Cohort participants, a running total of 142 Beacon Participants, 352 SEEC Forum 2018 Attendees, 446 SEEC ClearPath tool users and a total of 875 engaged stakeholders by the best practice coordinator. The SEEC Accelerator provided targeted assistance to disadvantaged/low-income (DAC) and rural-hard-to-reach (RHTR) communities. ICLEI, with support from the BPC, developed greenhouse gas (GHG) Inventories for Stockton and Fresno, and initiated inventories with San Jose, Huron, and Arvin. The Beacon Program gained 12 additional cities, many of them DACs. ILG assisted 142 participants with data requests and documentation of their sustainability achievements, including 29 Electricity Savings Spotlight Awards and six (6) Natural Gas Savings Spotlight Awards.

LGC led coordination of the 9th Annual SEEC Forum in Sacramento. Ninety-five percent of survey respondents rated the overall event as good or extremely good. 96% of survey respondents agreed or strongly agreed that they increased their knowledge and understanding of the issues.

The BPC produced the popular "WEEkly Update," which included important energy efficiency and sustainability news and information and was distributed every Monday to over 875 California local government representatives and other key stakeholders. The BPC also hosted a monthly local government roundtable focused on climate action plan implementation and a quarterly roundtable focused on street lighting energy efficiency, as well as provided direct

technical assistance in the areas of building energy codes, revolving loan funds, and energy action plan development.

Program changes for 2018 consisted of implementation by ICLEI a new streamlined on-boarding process for new users to via a needs assessment, tool demo, and introduction to the self-paced training curriculum available on the SEEC Resource Portal. Additionally, updates are being made to the SEEC ClearPath master data workbooks to help facilitate raw data collection and uploading to SEEC ClearPath. Also, due to a delay in hiring a new BPC following the previous BPC's departure in July 2018, BPC resources were reprioritized to focus on planning for the 2019 SEEC forum.

SCG3753 LGP-Desert Cities Partnership

The Desert Cities Energy Partnership (DCEP) Program is a local government partnership comprised of Blythe, Cathedral City, Desert Hot Springs, Indian Wells, Palm Springs, Rancho Mirage, Agua Caliente tribe, La Quinta, Coachella, Indio, Imperial Irrigation District (IID), SoCalGas and SCE. The program is designed to assist local governments to effectively lead their communities to increase EE, reduce greenhouse gas emissions, increase renewable energy usage, protect air quality and ensure that their communities are more livable and sustainable.

Partnership activities focus on implementing EE measures in municipal facilities specifically. The partnership establishes energy savings goals through city-identified projects, funded by partnership incentives and technical assistance. The partnership supports city and community EE efforts through marketing and outreach funds.

The team met monthly to discuss program goals, milestones, marketing, training, and EE projects. This meeting was rotated to different cities to encourage participation from cities that are significantly spread out. The Partnership also held semi-annual working group meetings with the cities to discuss their ongoing projects. The annual Energy Summit was held at the Agua Caliente Casino and was well attended. Additionally, the Partnership sponsored an Energy Code Workshop for its members and the community.

The recession and cutbacks have impacted the engagement in the partnership. Many city champions are either no longer with their respective city or have had their duties shift to other responsibilities, making DCEP less of a priority. Participation in meetings suffered because of this shift.

There were no identified program changes in 2018.

SCG3754 LGP-Ventura County Partnership

Working in conjunction with Southern California Gas Company (SoCalGas) and Southern California Edison (SCE), the Ventura County Regional Energy Alliance (VCREA) continued as the implementing partner for the VCREA Program. VCREA works to coordinate efforts among public agencies, including local jurisdictions, schools, and special districts, as well as businesses and residents of Ventura County. VCREA is a leader in developing and implementing durable,

sustainable energy initiatives that support sensible growth, healthy environment and economy, enhanced quality of life and greater self-reliance for the region by reducing energy demand and increasing energy efficiency practices.

Program success include identification and coordination of energy projects leveraged with utility incentives to public agencies totaling 54,806 therm savings in 2018. VCREA led over 40 outreach events and program presentations, hosted four trainings and workshops, collaborated efforts with SoCalGas for fire recovery offerings and attended ten Fire Related Site Visits in 2018 as well as events and community meeting outreach. Continued Strategic Planning work to support efforts such as regional benchmarking, Energy Action Plans (EAPs), and revolving energy efficiency (EE) loan fund. Benchmarking successes include training VCREA staff on ENERGY STAR Portfolio Manager, developing AB 802 Outreach Materials and a list of commercial facilities that are required to report their energy usage to the Energy Commission, and setting up municipal accounts for all ten cities and the County of Ventura in ENERGY STAR Portfolio Manager. VCREA is working on syncing AB 802 targeted accounts to SCE and SoCalGas's benchmarking portal so data is automatically downloaded. VCREA continues to develop a benchmarking report template for municipal facility managers which describes their facilities' EUI scores and provides recommendations for EE within those facilities.

As a participant of the California Green Business Program, VCREA has continued to build partnerships with local business-related organizations to promote the green certification program. Partnered with Chambers to conduct targeted outreach and host education opportunities, VCREA has hosted workshops, social media campaigns, held green business presentations, to garner support and promote local services for businesses. VCREA has registered 59 businesses in the GreenBiz Tracker, 13 local businesses completed participant level, nine were certified and two completed recertifications.

VCREA continues to work on strategic planning projects, which were partially funded by the utilities. These include completing City of Ventura and Thousand Oaks greenhouse gas inventories, developing draft EAP strategies for six energy related sectors and conducting research on Revolving EE Loan Fund successes include researching jurisdictions that have implemented revolving EE loan funds.

The program has faced some challenges and barriers with utility data inconsistencies and delays, which hinder and slowed the progress of some work for the program. Data access needs to be addressed. Other items include delays with Strategic Plan funded benchmarking efforts occurred due to SCE's Benchmarking Dashboard launch being delayed. Lastly, ENERGY STAR Portfolio Manager was not operational during the Federal Government Shutdown in late-2018. Program invoicing processes became very cumbersome.

In 2018, one of the program changes made was the creation of infrastructure by County of Ventura IT Dept., which was funded by County to support municipal governments with electric data. VCREA became the first local government to implement Green Button. The next level will be to build out the project to include natural gas data.

SCG3755 LGP-Local Government Energy Efficiency Pilots

In 2018 SoCalGas focused on the implementation of existing programs and did not launch new pilots.

SCG3773 LGP-New Partnership Programs

In D.12-11-015, the CPUC authorized funding for Southern California Gas Company for the purpose of adding new LGP subject to the approval of the CPUC. These new LGPs will continue to promote EUC. Deep energy retrofits were a priority in the 2013-2017 program cycle.

Expansion Opportunities include closing the gap between partnerships that currently have partnerships with SCE and adopting those partners into SoCalGas LGP programs.

SoCalGas did not add any new LGPs in 2018.

SCG3774 LGP-LG Regional Resource Placeholder

In D.12-11-015, the CPUC authorized the formation of the SoCalREN to implement SoCalREN's Authorized Work which includes three sub-programs, EUC Residential program, Finance program and the Southern California Regional Energy Center (SoCalREC) programs for public agencies in SCE and SoCalGas service territories. In this Program, SoCalGas serves as a Lead Utility to provide fiscal oversight, day-to-day contract management and overall monitoring of SoCalREN programs. SoCalGas also works collaboratively with SoCalREN on program coordination to achieve seamless program offerings and avoid customer confusion.

During 2018, SoCalGas and SoCalREN build on the successful program coordination and leveraging in 2016 to continue the improvement and refinement of the coordination practices. Additionally, SoCalGas continued to maintain and manage a secure bill file delivery system to provide billing data for participating local governments through SoCalREN's EEMIS (Enterprise Energy Management and Information System) project. The utilities and SoCalREN continue the regular project coordination and communication through various coordinating committees across many programs. Pursuant to D.18-05-041, SoCalGas successfully worked with both SoCalREN and 3C-REN along with PG&E and SCE to jointly file a Joint Coordination Memorandum with each REN on program coordination to avoid duplication and overlapping.

Upon Commission approval of 3C-REN in late 2018, SoCalGas began its Lead Utility roles to provide fiscal oversight, day-to-day contract management and overall monitoring of 3C-REN programs.

SCG3776 LGP-Gateway Cities Partnership

The Gateway Cities Energy Partnership Program (GCELP) is a local government partnership between the Cities of South Gate, Norwalk, Downey, Lakewood and Lynwood (the "Cities" or

"Partners") along with SCE and SoCalGas. This Partnership program works to raise EE awareness, promote long-term energy reduction goals within municipal building stock and coordinates with partner cities to cross promote residential and business utility EE programs. In addition, the partnership program completes targeted retrofit and retro-commissioning projects in municipal facilities.

Partnership activities focus on addressing energy usage in municipal facilities and in the community. This Partnership places great emphasis on having partners lead their communities by example; by first concentrating on their own municipal facilities. This partnership program provides EE education, technical assistance, retro-commissioning (RCx) as well as design consultation and energy analysis of new construction and renovation project plans. Analysis of municipal facilities will be conducted to identify demand reduction projects with energy conservation measures (ECM) alternatives to optimize the energy and environmental performance of a new building design or extensive retrofit project in each of the targeted cities.

In addition, this Partnership places great emphasis to serve as a resource for energy savings to the community by working closely with Partners to identify community events to best bring resources to residents about relevant residential and business programs.

The primary objectives of the Gateway Cities Energy Partnership includes: (1) Providing specialized EE offerings to participating local governments, residential and business communities, (2) Leveraging their communication infrastructure to inform their local communities about the wide variety of energy efficiency and demand reduction offerings available to them and encourage participation as much as possible, (3) Identifying opportunities for municipal building retrofits, new construction, commissioning and retro commissioning as well as funnel existing EE programs to the partnership participants, (4) Accessing valuable energy efficiency expertise through technical assistance to help identify ECMs, define project scope, estimate project cost, and determine eligible incentives and rebates, and (5) Offering training and education for municipal staff to grow in-house expertise for HVAC systems, electrical systems, lighting, data collection, environmental regulations and code compliance.

In 2018, Notable program successes included: (1) Continuing to develop the program infrastructure by providing regular monthly update meetings were held with partners and program administrators every 3rd Wednesday of the month throughout 2018. Taking the months of November and December off due to the holidays, and (2) Partnership participated in five significant and well-attended partner community outreach events in 2018. Partner's Lakewood and Norwalk each hosted their own Community Connect events, offering distinct opportunities for community residents to engage with utility partners. Norwalk's Community Connect event was held December 2018, 4,000 residents and visitors were in attendance. Lakewood's Community Connect Event was held in August 2018. SoCalGas offered on site evaluation and sign up to participating residential energy efficiency programs such as the energy savings assistance, bill-reducing rates, one-time bill assistance and the energy assistance fund.

This Partnership provided specialized EE offerings to participating local governments, residential and business communities and The Partnership informed partners and their

communities about the wide variety of energy efficiency and demand reduction offerings by SoCalGas.

SCG3777 LGP-San Gabriel Valley COG Partnership

The San Gabriel Valley Energy Wise Partnership (SGVEWP) is a collaboration between the San Gabriel Valley Council of Governments (SGVCOG), SCE, SoCalGas. The primary objectives of the SGVEWP are as follows:

Identify opportunities for municipal building energy efficiency retrofits and assist cities in implementing these projects and accessing SoCalGas financial incentives and technical resources; leverage the SGVCOG's communication infrastructure to inform member agencies about existing SoCalGas energy efficiency, conservation and demand response programs and encourage participation; and develop specialized energy efficiency offerings to local governments as well as residential and business customers.

The Partnership updated the SGVEWP website, www.sgvenergywise.org, to include recent news and events and competed a winter-preparedness outreach campaign that included social media posts, and newsletter articles. The Partnership coordinated distribution of information to member agencies by leveraging existing communication channels, including the SGVCOG's committee structure, and attended 22 Marketing events in 2018. The Partnership conducted outreach events for SoCalGas ESA program, and successfully provided ESA brochures to five Senior Centers.

The SGVEWP hosted ten monthly Partnership meetings with the IOUs and six One-on-One City Energy Wise Partnership Update and Project Planning Meetings with the San Gabriel Valley cities.

SCG3779 LGP-West Side Cities Partnership

The West Side Energy Partnership (WSEP) is a SoCalGas Local Government Partnership focused on achieving energy savings and behavior change in residential, nonresidential, and municipal sectors. The WSEP's three core program elements are consistent with the SoCalGas Master Program Implementation Plan: Government Facilities, California Long Term Energy Efficiency Strategic Plan Activities (Strategic Plan), and Core Program Coordination, and enhancing the leadership role of local governments in energy management. With the City of Malibu joining in early 2018, the WSEP now consists of SoCalGas, the City of Beverly Hills, Culver City, Malibu, Santa Clarita, Santa Monica, and West Hollywood. Although WSEP SCG is a non-resource program, it does have annual therm savings targets that are achieved through municipal EE projects.

The Partnership facilitated six WSEP meetings with city and utility partners. The Partnership promoted SCG's core programs to residents at outreach events, and promoted utilities resources and programs to Santa Clarita city staff at educational lunch & learn. They also distributed Local Government e-blasts for Partner education and training. The Partnership initiated the Strategic Plan energy benchmarking project and prepared materials for the upcoming

greenhouse gas inventory report for Culver City. They maintained partnership website to serve as a resource for city and utility partners. The Partnership applied for Beacon Award on behalf of Culver City, Malibu, Santa Clarita and West Hollywood for recognition of efforts towards energy efficiency. They also applied for the Cool Planet Award on behalf of Santa Monica for recognition of efforts toward energy efficiency

The Partnership pursued audits at the Culver City Veterans Memorial Facility and the West Hollywood City Hall to identify therm saving measures. The Partnership also distributed SoCalGas Energy Efficiency Starter Kits to residents at outreach events. There were limited opportunities for energy efficiency audit development due to relatively low natural gas loads at municipal facilities. The Partnership claimed 31 therm savings from the West Hollywood Direct Install project.

SCG3783 LGP-Western Riverside Energy Partnership

The Western Riverside Energy Partnership (WREP) is a Partnership between SCE, SoCalGas, Western Riverside Council of Governments (WRCOG) and 14 of its member jurisdictions. The purpose of WREP is to assist its members to identify and implement EE projects in municipal facilities, but to also provide sustainable best practices to the community.

In 2018, WREP saw success in a few different platforms. The first one was in the completion of the Building Operator Certification (BOC) Training. During the duration of this fourmonth training, the Partnership was able to enroll 25 attendees representing six WREP agencies.

WREP also saw success in community outreach. This past 2018, the Partnership team attended ten community events where 109 Energy Efficiency Kits were distributed at the Cities of Calimesa, Eastvale, Perris, and Temecula.

The Partnership team in coordination with SoCalGas assisted the Cities of Lake Elsinore and Menifee to identify and implement several gas related Direct Install measures in their municipal facilities.

The Partnership utilized Technical Assistance with the City of Lake Elsinore to identify energy / natural gas projects through an audit.

As with prior years, it has been difficult to implement natural gas projects in the Western Riverside subregion due to a lack of natural gas related projects. To try and overcome this barrier, the Partnership team heavily promoted the offerings provided by SoCalGas' Direct Install program to gather support and potentially identify natural gas related projects that might not be in the member's radar. In doing so, two cities participated in the Direct Install Program offered by SoCalGas. The Partnership looks to increase that participation in 2019.

The Partnership team completed three Quarterly meetings in 2018; ten community events; presentations at City Council & Chamber of Commerce meetings. The Partnership was successful in implementing the BOC Program; utilizing Direct Install and Technical Assistance.

SCG3801 LGP- North Orange County Cities Partnership

The North Orange County Cities (NOCC) Energy Partnership consists of the eight cities of Brea, Buena Park, Fullerton, La Habra, La Palma, Orange, Placentia, and Yorba Linda, as well as SCE and SoCalGas plus vendor implementing partner, The Energy Coalition, based in Irvine. The partnership is focused on achieving energy savings and behavioral change in residential, non-residential, and municipal sectors. The NOCC Energy Partnership supports local governments to implement local government actions that are identified in the Strategic Plan.

In 2018, notable program successes included: (1) Identified and claimed therm savings from La Habra Community Center Savings By Design project, (2) Promoted and coordinated participation of SoCalGas Direct Install Program, (3) Promoted SCG's core programs to residents at outreach events, (4) Distributed SoCalGas Energy Efficiency Starter Kits to residents at outreach events, (5) Distributed Local Government Partnership e-blasts for Partner education and training, (6) Coordinated and conducted city council meeting presentation to recognize completion of Buena Park pool cover installation, (7) Facilitated bi-monthly partnership meetings and quarterly city check-in calls, (8) Pursued two audits to identify therm saving measures, (9) implemented Strategic Planning energy benchmarking project, (10) Maintained partnership website to serve as a resource for city and utility partners, (11) Applied for Beacon Award on behalf of La Habra for recognition of efforts towards EE, (12) Applied for Cool Planet Award on behalf of Orange for recognition of efforts towards energy efficiency.

SCG3802 LGP- San Bernardino Regional Energy Partnership

The San Bernardino Regional Energy Partnership (SBREP) is a joint partnership between San Bernardino Council of Governments (SBCOG), SCE and SoCalGas. This Partnership was approved and added to the LGP for SCE and SCG in April 2015.

The Partnership provides an EE Partnership program to 12 cities within the San Bernardino Valley and Morongo Valley portions of the SBCOG region. Participating cities include: Chino, Chino Hills, Fontana, Highland, Montclair, Rancho Cucamonga, Redlands, Rialto, San Bernardino, Twentynine Palms, Upland and Yucca Valley.

The primary objectives for the Partnership includes (1) Promoting integrated EE through identifying/assisting in the coordination of opportunities for cost-effective implementation of natural gas and electric energy-savings technologies; (2) Coordinating community outreach and training efforts to educate consumers and promote programs; and (3) Identifying/offering financial packages that bundle practical utility incentives, with various monetary incentives aimed at improving the participation of residents, businesses and local government agencies.

The Partnership coordinates with the participating cities on a monthly basis via conference call and on a quarterly basis in person where they can discuss EE goals and opportunities, project milestones, training opportunities, and best practices. On an as needed basis, one-on-one meetings are facilitated with member cities to focus on their individual needs. In addition, the Partnership provides EE educational outreach support at community events and hosts holiday LED light exchange and EE starter kit events during for participating SBREP cities.

The Partnership to date has reduced more than six million kWhs and 3,500 Therms, and received more than $2.5 million in incentives. The Partnership has also obtained strategic planning funding to benchmark four SBREP cities and offered Building Operator Certification (BOC) training to all participating cities during 2018.

This Partnership did not meet its therm savings target but continued to engage actively with partner cities. The Partnership successfully participated in three community outreach events, hosted six holiday LED light exchange and EE starter kit events, and had four cities participate and complete BOC training.

Third Party Programs

SCG3757 3P-Small Industrial Facility Upgrades

The Small Industrial Facility Upgrades Program (SIFU) is designed to offer calculated custom process improvements, as well as proven deemed measures via the Energy Efficiency Calculated Incentive Program (EECIP) and Energy Efficiency Rebates for Business (EERB) program. It melds with Accounts Executives where overlap exists and serves as a personalized compass that supports navigation of Energy Efficiency process.

SIFU has become a trusted energy advisor for our customers who, in turn, apply the advice toward a more sustainable Energy Efficient business profile.

The program reaps customer engagement from stakeholders by substantiating energy efficient findings with subject matter experts, suppliers, and Account Executives.

The program serves food to mining industries, to reach a diversified customer pool, while building strong relationships with the end use customer. Additionally, these relationships are the basis for success in the program.

The requirements and expectations for documentation, especially related to influence, continued to dampen the successful development of new projects in 2018. The Program continues to expend great efforts to develop and maintain customer engagement, despite the challenges in identifying and providing acceptable, available, documentation for custom project influence and baseline determinations.

Additionally, due to various challenges at the facility level, project installation and commissioning schedules commonly vary, as such, the program always works closely with key stakeholders to track and support customer's Energy Efficient direction. The program's strength continues to be building a pipeline of projects to manage program objectives and therm goals.

SGC3758 3P-Program for Resource Efficiency in Private and Public Schools

The Program for Resource Efficiency in Private and Public Schools (PREPPS) is targeted toward qualifying private institutions of learning of all levels as well as public K-12 schools in the SoCalGas service area. The goal of PREPPS is to reduce gas energy costs, greenhouse gas emissions and improve school district facility operations to enhance the learning environment.

PREPPS provides school facilities with project opportunity evaluations, energy efficiency recommendations, technical services, and cash incentives. Bonus incentives are available for customers who complete projects within a specified time-period. Incentives for deemed and calculated measures are equivalent to rates currently offered by SoCalGas' core energy efficiency programs for the same measures.

PREPPS saw many successes in 2018; for example, increased savings over 2017, successfully closed out a large custom project, and finalized the development of a marketing case study.

SCG3759 3P-On Demand Efficiency

The On-Demand Efficiency Program (ODE) is a direct install program that decreases natural gas consumption of central domestic hot water systems with recirculation loops in multifamily buildings while maintaining occupant satisfaction with the hot water delivery. Demand controls on hot water recirculation systems turn off the recirculation pump when it is not needed, thereby reducing heat loss from the loop, boiler fire time, and natural gas consumption. This program identifies multifamily properties with central domestic water heating systems and installs on-demand controllers that are feasible for the water heating system.

In 2018, the program delivered 93% of its net therm savings goal and 93% of its dwelling unit goal. The contractor and subcontractors remain able to acquire new customers at a reliable rate and this is likely to continue into 2019 based on the current pipeline and list of prospective customers. Program marketing continues to target property owners and managers of apartment complexes of various sizes with the aim of bringing the program to a broad range of customers relative to type of ownership and building size. In addition, the program also engaged in a new marketing campaign designed to target previously unreached property management companies through the use of non-sales cold calling. Calls were made with the aim of giving SoCalGas customers information and setting up appointments to discuss the program with those customers rather than trying to "close the deal" over the phone. This campaign was successful and led to the enrollment of several management portfolios of various sizes.

SCG3760 3P-HERS Rater Training Advancement

The Home Energy Rating System (HERS) Advanced Rater Training Program is a SoCalGas third-party non-resource program. The program promotes, develops, and delivers training to currently certified HERS raters, energy analysts, heating, ventilation, and air conditioning (HVAC) technicians, building department officials, other building trade professionals, residential

homeowners, and technical students with a focus on participants involved in new and existing engineering and construction in the SoCalGas service territory. The curriculums address technical and administrative elements of energy ratings, energy efficiency standards including changes based on updated Title 24 requirements, and industry best practices.

In 2018, the HERS Program worked to strengthen its existing partnerships with venue partners including trade organizations, technical schools and state colleges, HVAC distributors and utilities. Production goals were met or exceeded.

Over 40 classes were delivered in 2018, attended by nearly 700 students over the year. After reduction in total number of classes over 2017 (12 fewer classes), the Program continued to deliver strong attendance for most classes.

The Program website (www.advancedratertraining.com), which was upgraded in 2017, provided a reliable and secure internet marketing presence in 2018. In addition, the website was updated with new course descriptions and marketing notices.

Cross-marketing of classes with venue partners and among other SoCalGas programs increased awareness and enrollment during the year. Increased phone outreach for classes augmented e-mail marketing efforts through the website and online enrollments. While the website remains the Program hub for marketing and enrollments, the importance of direct interaction with potential students and their employers through phone outreach and e-mail provides timely information, awareness and Program visibility at a highly effective level.

SCG3762 3P-Community Language Efficiency Outreach

The Community Language Efficiency Outreach (CLEO) Program is a highly targeted residential energy efficiency marketing, outreach, education and training program. It specifically targets Vietnamese, Indian, Chinese, Korean, Hispanic (Spanish-speaking) and African American (VICK-HA) SoCalGas customers. The program has a unique, 100% in-language strategy which serves a key role in overcoming the English as a second language market barrier. It also targets hard-to-reach, low and medium income customers.

The program markets SoCalGas programs and offers energy efficiency education and training and participates in community events, where customers are encouraged to fill out energy efficiency surveys and sign up for free EE Kits. CLEO's marketing efforts encourage and create participation in SoCalGas energy efficiency programs. In 2018, CLEO also targeted SoCalGas customers in other Southern California Power Producers Association (SCPPA) municipal cities.

The program emphasized on working with faith-based organizations and community-based organizations, especially in Hispanic communities. This effort resulted in a participation increase of 300% in the Hispanic community as compared to the previous year.

The program also continued to reach out to foodservice business customers to educate them on SoCalGas foodservice programs such as EE programs, rebates and Energy Resource Center workshops. The CLEO provided in-language assistance as required for the attendees and had the

most significant impact on middle to low-income customers who clearly demonstrated a stronger interest in energy efficiency program offerings. This also extended to increased participation in the incentives and services offered by SoCalGas and facilitated by CLEO - as compared to higher income customers.

In 2018, the program clearly met and significantly exceeded its program goals. CLEO provided eight in-language seminars, 100 booths, two schools, 328 foodservice surveys, 323 EE surveys and 502 EE Kits sign-up. The program also hosted two energy education school workshops.

The CLEO program made a significant change in the latter part of 2018 adding a direct installation component for both residential and commercial foodservice customers. Additionally, the program reassigned a limited portion of the goals to SCPPA cities and Southern California Edison (SCE) shared territories due to reprioritization of SCE funding. In addition, radio and newspaper marketing was replaced by more focused in-person marketing

SCG3763 3P- Multi-Family Direct Therm Savings

The Multi-Family Direct Therm Savings Program (marketed as "Energy Smart") targets owners and managers of multi-unit residential properties. The program encourages participation by providing energy efficient products and installation at no cost to the end-use customer. Marketing activities focus primarily on apartment building owners and managers.

The Energy Smart Program continued to provide a high level of customer service, sales outreach, and field installations in 2018. The Energy Smart Program strategically partnered with two subcontractors for the installation of measures with their customer base multi-family properties. Approximately 375 sites participated in the program with 50,530 energy efficient devices installed. The Energy Smart team and its authorized subcontractors provided a high level of customer service, both in the office and in the field. In 2018, the program received an overall satisfaction rating of 91 out of 100 from customers responding to a survey questionnaire generated by a third-party survey tool.

SCG3764 3P-LivingWise®

LivingWise is a residential energy education and savings program delivered through schools. SoCalGas collaborated with six different California municipalities, utilities or water agencies (Golden State Water, California American Water Co. [Los Angeles and Ventura], City of Torrance, City of Santa Barbara, Mission Springs Water District, and Moreno Valley Utilities) to implement this program.

The Program is a 6th grade education model built on a proprietary Measure-Based Education (MBE) methodology. This results in students who readily engage in the teacher-led education within their school and are empowered by the hands-on, lab-based take-home measure installations within their homes. This personalized education program delivers increased energy literacy, optimum installation rates, and a deeper understanding of energy efficiency concepts, including IDSM. Teachers are incentivized to implement the program in its entirety and return Student Surveys for EM&V reporting. The program optimizes energy savings and behavior

change while supporting California state standards-based core classroom curriculum, enabling teachers to control the timing and pace of the program delivery.

The Program's educational content is aligned with State Learning Standards as well as the rigorous expectations of STEM (Science, Technology, Engineering, Mathematics disciplines) and is offered to eligible teachers as an elective (supplemental) program. Teacher enrollment is high and overall participant program satisfaction, including parents, is excellent.

The 2018 Program met its initial goal of serving 39,694 sixth grade students. In August of 2018 SoCalGas approached Resource Action Programs (RAP) with an opportunity to serve an additional 50,000 students in 2018. Within one month, RAP was asked to serve even more students. RAP identified a stretch goal of an additional 15,000 students and by the close of 2018 had successfully served 99,743 unique student households for an increase of 251%.

SCG3765 3P-Manufactured Mobile Home

The Manufactured Mobile Home Program (MMHP) is designed to provide energy efficient gas measures on a comprehensive basis to manufactured mobile home SoCalGas customers. These energy efficient measures include duct test and seal, kitchen and bathroom faucet aerators, low flow showerheads, thermostatic tub spouts, and thermostatic shutoff showerheads.

The smart programmable thermostat was successfully integrated into the MMHP 2018 design. This technology was installed for many participants and was their first experience with energy management technologies. The smart programmable thermostat was the program's most desired measure by customers.

Demand for the thermostats continues to be high and they open the door for deeper retrofit of cost-effective water measures such as faucet aerators, showerheads, and thermostatic shower valves. The MMHP was delivered to over 12,000 customers in 2018 with the smart thermostat being the big driver.

SCG3768 3P-California Sustainability Alliance

The California Sustainability Alliance (Alliance) is a non-resource program of the SoCalGas designed to increase and accelerate adoption of energy efficiency by packaging it with complementary "sustainability" measures (i.e., energy and water use efficiency, renewable energy, waste management, and transportation management). In this manner, energy efficiency can be achieved more effectively and cost effectively, increasing net societal benefits and maximizing benefits to California ratepayers. The scope includes multiple activities dedicated towards (1) building demand for energy efficiency and environmental sustainability; (2) advancing and promulgating the body of sustainability best practices, tools, and techniques; (3) leveraging the collective resources of all partners - public and private; local, state, and federal; and (4) developing educational and outreach materials to widely disseminate the body of emerging and existing best practices.

The Green Buildings portion of the program ran a student design competition in coordination with Cal Poly Pomona. In addition, it wrote a report including a case study demonstrating how health and wellness in biotech buildings can encourage deeper penetration of energy efficiency.

The Alliance presented at the 2018 Municipal Green Building Conference and Expo with SoCalGas on the Opportunities to Advance Sustainable Building through Transit-Oriented Development, which was the subject of a 2017 Alliance project. In addition, the Alliance supported a USGBC-LA tour of the Gates Thomas Building at Cal Tech, which was the subject of a 2017 case study completed by the Alliance.

SCG3769 3P-Portfolio of the Future

The Portfolio of the Future (POF) program is a non-resource program aimed at filling the gap between existing technology offerings (i.e., measures) in SoCalGas' EE portfolio and new, emerging technologies. POF seeks to enable the inclusion of emerging natural gas efficiency technologies and new business models to identify potential natural gas applications in all sectors for possible inclusion in SoCalGas' EE portfolio. This entails identifying, evaluating, and demonstrating new technologies and then working to facilitate their inclusion in SoCalGas' program offerings.

In 2018, POF assisted in evaluating several promising measures – such as infrared patio heaters, natural gas desiccant systems, fireplace inserts, recirculation pump time clock, underfired char broiler, etc. The program also continued earlier work on a few other measures such as wireless pneumatic thermostats, ventilation load reduction, residential ozone laundry, residential aero-sealing, etc.

The primary indicator of POF program success is the number of new technologies that are brought into SoCalGas' EE portfolio, and their estimated incremental savings potential. In 2018, the program was successful in enabling SoCalGas to bring several new measures to its EE portfolio.

SCG3770 3P-PACE

The PACE Energy Savings Project (PACE ESP) is a multi-ethnic outreach program that actively promotes the SoCalGas energy efficiency programs to its residential and small business customers. The program focuses on customers who belong to the Chinese, Filipino, Korean, Hispanic and Vietnamese communities living in Los Angeles, Orange, Riverside, San Bernardino and Ventura Counties. PACE ESP conducts its outreach efforts in the native languages of these communities to promote better understanding and increased participation in these programs.

PACE ESP met and exceeded all its target goals and tasks in 2018. Program success was attributed directly to the outreach specialists who conveyed the information directly to the community members and participated in community events. Furthermore, PACE ESP specialists conducted seminars and presentations that target community members via outreach activities in their native languages, presented energy efficiency concepts, distributed in language information

materials to target communities, and coordinated with formal and information leaders of the community.

The program identified several implementation barriers in 2018 including timeliness and availability of energy efficiency and rebate application forms, as well as collateral materials needed for outreach activities.

In 2018, PACE ESP conducted one workshop/seminar and one presentation and participated at 30 ethnic community events. As part of these efforts, PACE ESP made contact with over 115 small business customers and roughly 330 residential customers. This resulted in over 272 completed Ways to Save Energy surveys. Lastly, the PACE ESP program enrolled over 125 residential customers to receive free EE kits by mail.

SCG3771 3P-Innovative Designs for Energy Efficiency Activities (IDEEA365)

The IDEEA365 supports the Rolling Portfolio solicitations by offering a two-stage solicitation process, consisting of a Request for Abstract (RFA) stage and a Request for Proposal (RFP) stage. Stage one – RFA invites all bidders to provide general programmatic design and implementation processes regarding specific segments that help to address program gaps, market needs, and technologies.

Based upon evaluation, and approvals by internal and external stakeholders, selected bidders will be invited to move forward to stage two – RFP, where more detailed and in-depth analysis of the bidders' proposal will be – once again, evaluated and approved by internal and external stakeholders to determine which bid(s) will be awarded contract(s). The external stakeholders for the solicitations are the EE Procurement Review Group (EE PRG) and the Independent Evaluators (IEs). The EE PRG consists of program stakeholders to provide advisement.

The IEs are tasked to monitor the solicitations process from start to end to ensure that a fair process is in practice. The IDEEA365 budget is available to support administrative costs for the SoCalGas solicitations staff as they continue to develop all components of the Rolling Portfolio solicitation process and prepare abstract and proposal releases.

In 2018, SoCalGas solicitations team diligently worked to develop the internal solicitation process. In September, SoCalGas selected its IEs upon approval from the previous cycle's Peer Review Group. In November, SoCalGas had its first EE PRG meeting and release its first round of abstracts. The initial challenge of the program solicitation process is developing and implementing a process that is expedient while still ensuring a consistently 'level playing field' with a transparent, methodical evaluation process at all stages.

SCG3793 3P-IDEEA365-Instant Rebates! Point of Sale Foodservice Rebate

The Instant Rebates! Point-of-Sale Foodservice Rebate (Instant Rebates) Program enables non-residential SoCalGas end-use customers to receive point-of-sale (POS) rebates when they purchase eligible, high-efficiency equipment from participating dealers. Equipment dealers also receive a sales incentive for every piece of eligible high-efficiency equipment for which they submit an online rebate application. The Program implementer provides turnkey program implementation services to SoCalGas.

The Instant Rebate Program design became effective July 1, 2018 and resulted in a significant expansion of program. More customer rebates were issued in Q3 and Q4 2018 than any other quarter in program history. The Program continued to build on its highly favorable ratings and the service provided by the Instant Rebates Program implementer. The Program implementer enrolled nine new vendors in 2018. This was a result of targeted outreach that was reinstated in May 2018 in preparation for the Program's design change effective July 1, 2018. Additionally, the implementer enrolled five design-build firms. The Program also introduces new Pre-Rinse Spray Valve (PRSV) marketing material was created and distributed, which led to a significant increase in PRSV rebated sales.

The CPUC resolution that limited claimed savings to the current calendar year conflicted with the existing Instant Rebates Program design and resulted in a program suspension that lasted from late November 2017 into January 2018. The suspension resulted in market distrust of the Program and the disruption of sales processes that lasted well into 2018. However, dealers' stocking trends and trust in the program improved with proactive outreach efforts in May 2018 and with a public notice of the July 1, 2018 Program design change. The Program did not meet Q3-Q4 forecasts due to the following challenges: (1) forecasts were overly ambitious for new market channels, such as Design Build, Manufacturers, and Online dealers; and (2) the severity and duration of the impacts from the 2017 year-end program suspension were underestimated. Rebounding to prior participation levels took longer and the participation drop off in Q1 and Q2 was more significant than anticipated. Targeted outreach with design build firms, manufacturers, and online dealers took a significant amount of engagement.

In response to SoCalGas' request to increase therm savings, engage more foodservice market channels, and expand SoCalGas' customer reach, the following eligibility and scope changes were implemented effective July 1, 2018: (1) removed one-month sales-to-installation date requirement, which allowed for more special order sales and the Design Build market channel to participate; (2) removed collection and verification of service account numbers requirement; replaced with simpler verification method that required dealers to confirm that equipment installation addresses are in SoCalGas service territory via a zip code validation tool; (3) removed customer paperwork requirement as a means to improve customer experience and encourage dealer participation; and (4) reinstated proactive outreach, which allowed for targeted outreach to untapped sales channels as a result of program design changes listed above. The requirement for inspections on equipment rebated through the Program was also removed with launch of new program design on July 1, 2018.

The Instates Rebates program exceeded its 2018 disadvantaged business enterprise (DBE) spending commitment. Additionally, the Program exceeded its fourteen-day program payment goal, issuing dealer rebates in an average of eight days from the application approval date. The Program implementer also enrolled nine new dealers to expand the program's geographical coverage and customer reach. Fifty-two dealer stores are currently enrolled in the Instant Rebates Program.

SCG3798 3P-IDEEA365-Connect

The Connect Program (Connect) is a non-resource program developed by Waypoint Building Group (Waypoint) which utilizes a portfolio approach to energy efficiency to develop a long-term energy savings pipeline to establish Corporate Real Estate (CRE) and utility relationships that result in beneficial situations for both CRE and utility stakeholders. Connect leverages relationships with the top CRE property management firms in SoCalGas's territory to gain the data and building access required to successfully engage the CRE market. Any potential energy savings are routed back through SoCalGas EE resource programs for rebates, incentives, and tracking and reporting of them savings.

In 2018 the Connect Program successfully enrolled 15 properties and audited six properties, meeting the KPI goal for properties enrolled and audits completed. The audits spanned across four commercia real estate portfolios. The findings from the audits identified 67,600 therms and associated SoCal Gas incentives of $46,200.

In 2018, the Connect Program faced similar barriers to those found in previous Program years. One continued barrier was the coordination with electric measures. The fact that the Program excluded electric measures caused lower interest as the majority of utilities expenditures for CRE buildings within SoCal Gas territory are electricity. Therefore, customers were hesitant to dedicate the time required for an audit if it would not include electric measures.

A new challenge that was discovered in 2018 was that customers expressed concern over the incentive approval timeline. Customers indicated that due to the uncertainty over incentive payment timing, they were not able to confidently include the incentive in the payback calculations, creating concern and doubt to pursue otherwise incentive-eligible projects.

In 2018, the Program maintained its core offering of providing CRE customers with benchmarking, audits, and incentive support. In addition to the core offerings, Waypoint shifted some of the focus to develop the energy savings pipeline of projects that had been identified in prior Program years. Waypoint collected status updates on projects and shared this information with SoCal Gas account executives

In 2018, the Connect Program met the majority of the Program objectives. Due to the Program being closed out, the mutual decision between SoCal Gas and Waypoint to cease non-critical Program activities.

SCG3804 3P-IDEEA365-On-Premise Ozone Laundry (OPOL)

The On-Premise Ozone Laundry (OPOL) Program was submitted as part of the fourth IDEEA365 Innovative Solicitation Round to Southern California Gas Company. The program targets small to medium sized hotels, fitness centers, health centers (including nursing homes, convalescent homes, hospices and hospitals) and correctional facilities that operate an on-premise laundry operation with washer capacities of 200lbs or less per machine. The program installs ozone laundry technology into customers' on-premise laundry facility. Ozone technology provides superior cleaning and disinfection properties and is most effective in cold water, thereby reducing gas and electricity consumption as well as reducing water and sewer charges by eliminating nearly all hot water wash cycle requirements, shortening wash cycle times, and decreasing total gallons of water required for each load.

Sound infrastructure, marketing strategies and well-trained staff have resulted in a steadily increasing program performance level. The program team, guided by the Program Advisor, has constantly refined the process of operation to maximize program availability to the qualified sector.

The program implementation team conducts regular teleconference meetings with the Program Advisor to assess current program status, progress and results. The administrative team regularly provides data requests from the Program Advisor and continuously implements program refinements.

Furthermore, the temporary increase to customer incentives in the form of additional rebates have resulted in the overwhelming interest and greater participation of the program.

Main barrier to program implementation centers around current rebate structure, as designated by ozone work paper of $39 per pound of washer capacity, which results in greater project cost loan balance for customers with smaller washer capacities.

SoCalGas has made a shift of marketing focus towards the larger capacity customer in order to fully maximize existing rebate structures which has resulted in greater participation as well as increased therms savings.

Water Energy Nexus

In 2018, SoCalGas has continued its diverse offering of programs that educate on water savings, delivering energy savings measures associated with the savings of hot water, as well as partnering with water agencies for cross-promotion.

Water Utility Partnering Activities

SoCalGas has maintained several water-energy nexus activities and partnerships. In 2018, SoCalGas continued its partnership with Los Angeles Water and Power (LADWP) and Los Angeles Metropolitan Water District (MWD) to co-deliver water energy nexus activities. These

activities include the Energy Smart Landscape seminars co-taught with MWD. SoCalGas also continued its Commercial Restaurant Retrofit program, in which MWD funds calculated water savings incentives. Another example is SoCalGas' partner program with MWD where low income customers receive water savings rebates from MWD through SoCalGas' ESA low income program. The LADWP/SoCalGas water energy nexus partnership continued its successful achievements through its direct install activities, installing various water energy measures in the multi-family segment.

SoCalGas continued its LivingWise® residential energy education and savings program. LivingWise® is a school-delivered residential program that is sponsored through collaboration between SoCalGas and 12 different California municipalities or water agencies. In 2018, the LivingWise® program involved sixth grade students, teachers and households reaching households to install and educate water energy activities. Additional information on the LivingWise® program can be found in the Program Descriptions and Strategies section under 3764 3P-LivingWise.

The On-Premise Ozone Laundry (OPOL) program continued its efforts installing ozone laundry technology into customers' on-premise laundry facilities. In 2018, a temporary increase to customer incentives in the form of additional rebates have resulted in the overwhelming interest and greater participation of the program. Furthermore, the addition of a partnership with Metropolitan Water District (MWD) contributed to an extra incentive to customers in joint territories. Additional information on the OPOL program can be found in the Program Descriptions and Strategies section under 3804 3P-IDEEA365-On-Premise Ozone Laundry.

Shared Network AMI Pilot

The WEN Shared Network AMI pilots were established to develop and refine the identification of potential hot water leaks based on analytics of both gas and combined water and gas usage data, and to evaluate the potential benefits associated with hot water leak detection and resolution. SoCalGas has partnered with two separate Commission-regulated water utilities, San Gabriel Valley Water Company and California American Water, in the pilot program, and with a third-party analytics vendor, Valor Water Analytics, to conduct the combined water-gas analytics.

Concluding in 2018, the shared network AMI Pilot achieved the following program goals: (1) network piggybacking, (2) combined utility data analytics for hot water leak detection, and (3) determining energy savings from reduced water loss. Additional information on the water AMI pilot program can be found in the Program Descriptions and Strategies section under SCG3806 Water Advanced Meter Infrastructure Pilot. The final reports of the water AMI pilots with the San Gabriel Valley Water Company and California American Water will be uploaded to the California Measurement Advisory Council database when available at www.calmac.org.

Other Water Energy Related Program Activities

In 2018, SoCalGas continued its offering of energy efficiency measures that can achieve direct water savings to residential and non-residential customers. Many of these measures are approval

through the Commission's Energy Division *Ex Ante* Review team for use with the W-E calculator to report embedded energy savings. These measures are listed in the table below:

EE Program Sector	Measures Offered that Achieve Direct Water Savings
Residential	Auto-Diverting Tub Spout with Thermostatic Shut-off Valve
	High Efficiency Clothes Washer*
	Low Flow Showerhead*
	Residential Faucet Aerator*
	Thermostatic Shower Valve*
	Water Savings Kit
Non-Residential	Commercial Faucet Aerator*
	Gas Combination Oven*
	Gas Presureless Steamer*
	Laminar Flow Restrictor
	Low Flow Pre-Rinse Spray Valve*
	Ozone Laundry

*Measures with approved embedded electric energy savings

SoCalGas plans to expand its offering of EE measures which can achieve direct water savings to residential and non-residential customers in 2019 through newly developed deemed EE savings measure workpapers, including residential ozone laundry and residential under-counter dishwashers.

Budget

Program expenditures are not broken out by measure or by water energy related activities and rather are included in the overall expenditures listed in Appendix B.1, Updated Monthly Report, for the following programs listed below:

Program
SCG3702 RES-Plug Load and Appliance
SCG3703 RES-Plug Load and Appliances – POS
SCG3705 RES-Home Upgrade Program
SCG3707 RES-RNC
SCG3711 COM-Deemed Incentives
SCG3761 3P-MF Home Tune Up
SCG3762 3P-CLEO
SCG3763 3P-MF Direct Therm Savings
SCG3764 3P-Livingwise
SCG3765 3P-Manufactured Mobile Home
SCG3793 3P-IDEEA365-Instant Rebates!
SCG3804 3P-IDEEA365-On-Premise Ozone Laundry

SCG3805 COM-Direct Install Program
SCG3806 Water AMI Pilot
SCG3807 COM-HOPPS-CRR Program

SECTION 1
ENERGY SAVINGS

The purpose of this table is to report the annual impacts of the Energy Efficiency portfolio of programs implemented by SoCalGas for the 2018 year. The annual impacts are reported for 2018 in terms of annual net and lifecycle net energy savings in natural gas savings in MMTh (million therms). The report shows annual savings (Installed Savings) that reflect installed savings, not including commitments. The values in the Installed Savings column include savings from the Low-Income Energy Savings Assistance Program, and Codes and Standards work (Low Income ESA and C&S savings are broken out as separate line items in Table 6 - Savings by End-Use).

Table 1

A	B	C	D
Table 1. *Electricity and Natural Gas Savings and Demand Reduction (Net)*			
Annual Results	**2018 Installed Savings**	**CPUC 2018 Adopted Goals (D.17-09-025)**	**% of Goals (2018)**
2018 Energy Savings (GWh) – Annual	***11.7***		
2018 Energy Savings (GWh) – Lifecycle	***159.3***		
2018 Natural Gas Savings (MMth) – Annual [2][4][7][8]	***51.8***	***46***	***113%***
2018 Natural Gas Savings (MMth) – Lifecycle [3][5][6]	***112.3***		
2018 Peak Demand savings (MW)	***1.5***		

[1] Results from activity installed in 2018 only.
[2] Includes savings associated with SoCalREN, Low Income Energy Savings Assistance, and Codes and Standards programs.
[3] Does not include lifecycle savings associated with Codes & Standards programs.
[4] The respective gross first year natural gas savings for 2018 was 57.9 MMth.
[5] Does not include lifecycle savings associated with Energy Savings Assistance and Codes and Standards programs for
[6] The respective gross lifecycle natural gas savings for 2018 was 172.5 MMth.
[7] Net Codes & Standards program savings for 2018 includes savings from market effects (5%) as calculated in CEDARS. Gross Codes & Standards program savings without market effects is 29,351,882 therms.
[8] Net Energy Savings Assistance program savings for 2018 includes savings from market effects (5%) as calculated in CEDARS. Net energy savings with out market effects is 1,575,510 therms.

SECTION 2
EMISSION REDUCTIONS

The purpose of this table is to report the annual incremental environmental impacts of the Energy Efficiency portfolio (for both electricity and natural gas) of programs implemented by SoCalGas during the 2018 program year. Parties agreed that the impacts should be in terms of annual and lifecycle tons of CO_2, NO_x, and PM_{10} avoided and should come from the cost-effectiveness tool.

Table 2

A	B	C	D	E	F	G
Table 2 *Environmental Impacts (Gross)*						
Annual Results	**Annual tons of CO2 avoided**	**Lifecycle tons of CO2 avoided**	**Annual tons of NOx avoided**	**Lifecycle tons of NOx avoided**	**Annual tons of PM10 avoided**	**Lifecycle tons of PM10 avoided**
2018 Portfolio Targets [1]						
2018 Total	**495,292**	**6,085,418**	**717,436**	**8,974,451**	**1,848**	**19,619**

[1] Portfolio targets were not established for 2018 in SoCalGas' Compliance Advice Letter 5183-A, approved per D.18-05-041 Ordering Paragraph 14, on June 28, 2018.

[2] Results from activity installed in 2018 only.

[3] Environmental impacts do not include any impacts associated with SoCalREN or Low Income Energy Savings Assistance programs.

SECTION 3
EXPENDITURES

The purpose of this table is to report the annual costs expended by SoCalGas in implementing the 2018 Energy Efficiency portfolio. The report is broken out into the Administrative Costs, Marketing/Education/Outreach Costs, and Direct Implementation Costs categories.

This table also includes budget and expenditure dollars outside of portfolio for:

1. SW ME&O,
2. Financing Programs/Pilots, and
3. Energy Savings and Assistance Program.

Table 3:
2018 Expenditures including expenditures on past cycle commitments paid in 2018

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
							Authorized/Forecast Budget		Total 2018 Expenditures (broken out by budget-year funding source)													
IOU	Program ID	Program Name (Add rows to include all programs)	Program Implementer (Use D op Down Menu)	Primary Sector (Use Drop Down Menu)	ESPI Program Category (Use D op Down Menu)	Delivery Channel (Use D op Down Menu)	2018 Adopted Budget (EE AL 5183-A) (SW ME&O D.16-09-020 & AL 5203, ESA G-3532, D.16-11-022, D.17-12-009, & AL 5256-A)	2018 Administrative Cost (forecast as per budget Advice Letters)	Administrative				Direct Implementation				PA Administered ME&O		SW ME&O	EM&V		On Bill Financing Loan Pool
									Non-IOU Implementer		IOU		Non-Incentive		Incentives & Rebates							
									2018 Expend tu es f om p e-2018 budgets	2018 Expend tu es f om 2018 Budget	2018 Expend tu es f om p e-2018 budgets	2018 Expend tu es f om 2018 Budget	2018 Expend tu es f om p e-2018 budgets	2018 Expend tu es f om 2018 Budget	2018 Expend tu es f om p e-2018 budgets	2018 Expend tu es f om 2018 Budget	2018 Expend tu es f om p e-2018 budgets	2018 Expend tu es f om 2018 Budget		2018 Expend tu es f om p e-2018 budgets	2018 Expend tu es f om 2018 Budget	
		Residential Programs																				
SCG	SCG3701	RES-Energy Advisor	IOU	Residential	Resource	Downstream	6 757 889	121 113	-	-	1 758	226 664	2 951 487	3 786 829	-	-	-	44 066				
SCG	SCG3702	RES-Plug Load and Appliances	IOU	Residential	Resource	Downstream	5 693 046	354 070	-	-	-	934 525	-	13 037 721	-	3 873 370	-	798 945				
SCG	SCG3703	RES-Plug Load and Appliances - POS	IOU	Residential	Resource	Midstream	3 287 108	114 758	-	-	-	157 479	-	54 418	-	2 964 394	-	881				
SCG	SCG3704	RES-MFEER	IOU	Residential	Resource	Downstream	1 075 172	68 573	-	-	-	267 704	-	622 845	-	3 582 601	-	72 997				
SCG	SCG3705	RES-Home Upgrade Program	IOU	Residential	Resource	Downstream	6 674 145	527 354	-	-	-	452 547	-	2 636 287	-	3 874 225	-	393 384				
SCG	SCG3706	RES-Residential HVAC	IOU	Residential	Resource	Midstream/Downstream	3 000 054	299 100	-	-	-	10 315	-	94 410	-	-	-	20 526				
SCG	SCG3707	RES-RNC	IOU	Residential	Resource	Downstream	2 472 928	246 600	-	-	(1 421)	157 396	8,184	701 052	841,438	192 478	(1 802)	131 783				
SCG	SCG3808	RES-HOPPS-CWHMBS Program	IOU	Residential	Resource	Downstream	650,000	60,000	-	-	-	75,317	-	332,576	-	47,280	-	869				
SCG	SCG3810	RES-AB793-REMTS Program	IOU	Residential	Resource	Downstream	363,000	55,000	-	-	-	15	-	-	-	-	-	123				
		Commercial Programs																				
SCG	SCG3708	COM-Energy Advisor	IOU	Commercial	Resource	Not Applicable	516,008	142,655	-	-	-	23,804	-	251,983	-	-	-	-				
SCG	SCG3709	COM-CEI	IOU	Commercial	Resource	Not Applicable	200,329	10,283	-	-	-	1,531	-	67	-	-	-	12,265				
SCG	SCG3710	COM-Calculated Incentives	IOU	Commercial	Resource	Downstream	3,445,394	310,452	-	-	(41,122)	257,996	(65,574)	1,687,157	(683,399)	731,304	31,885	252,151				
SCG	SCG3711	COM-Deemed Incentives	IOU	Commercial	Resource	Midstream/Downstream	4,497,331	694,552	-	-	(2,280)	706,336	79,579	1,798,828	613,628	4,370,863	6,261	754,727				
SCG	SCG3712	COM-NonRes HVAC	IOU	Commercial	Resource	Downstream	328,282	18,309	-	-	-	12,286	-	100,573	-	-	-	-				
SCG	SCG3805	COM-Direct Install Program	IOU	Commercial	Resource	Not Applicable	1,750,000	160,000	-	-	-	227,853	-	271,693	-	2,195,269	-	67,016				
SCG	SCG3807	COM-HOPPS-CRR Program	IOU	Commercial	Resource	Downstream	480,000	50,000	-	-	20,125	8,522	215,191	47,604	-	5,750	21,110	10,190				
SCG	SCG3809	COM-AB793-CEMTL Program	IOU	Commercial	Resource	Downstream	595,000	90,000	-	-	-	20,619	-	18,584	-	-	-	-				
		Industrial Programs																				
SCG	SCG3713	IND-Energy Advisor	IOU	Industrial	Non-Resource	Not Applicable	615 730	43 124	-	-	-	11 671	-	92 752	-	-	-	-				
SCG	SCG3714	IND-CEI	IOU	Industrial	Resource	Not Applicable	324 017	17 728	-	-	-	19 053	-	180 801	-	2 100	-	-				
SCG	SCG3715	IND-Calculated Incentives	IOU	Industrial	Resource	Downstream	15 184 880	1 324 491	-	-	(19 419)	391 335	(111 550)	1 919 970	614 216	-	301 142	379 465				
SCG	SCG3716	IND-Deemed Incentives	IOU	Industrial	Resource	Downstream	3 382 590	392 054	-	-	(890)	121 962	(5 653)	488 148	33 671	254 815	(3 945)	207 863				
		Agricultural Programs																				
SCG	SCG3717	AG-Energy Advisor	IOU	Agricultural	Non-Resource	Not Applicable	39 703	3 465	-	-	-	6 004	-	45 406	-	-	-	-				
SCG	SCG3718	AG-CEI	IOU	Agricultural	Resource	Not Applicable	32 200	1 736	-	-	-	3	-	67	-	-	-	-				
SCG	SCG3719	AG-Calculated Incentives	IOU	Agricultural	Resource	Downstream	2 588 775	201 642	-	-	(22 426)	71 389	(12 842)	457 081	(0)	-	(1 523)	70 330				
SCG	SCG3720	AG-Deemed Incentives	IOU	Agricultural	Resource	Downstream	502 829	73 813	-	-	(748)	104 616	40 185	345 252	(14 129)	804 284	(1 280)	55 883				
		Emerging Technologies Programs																				
SCG	SCG3721	ET-Technology Development Support	IOU	Cross Cutting	Non-Resource	Not Applicable	63 575	4 601	-	-	145	16 695	42 375	101 626	-	-	-	-				
SCG	SCG3722	ET-Technology Assessment Support	IOU	Cross Cutting	Non-Resource	Not Applicable	508 588	36 804	-	-	1 978	59 845	213 839	367 857	-	-	-	316				
SCG	SCG3723	ET-Technology Introduction Support	IOU	Cross Cutting	Non-Resource	Not Applicable	700,172	110,748	-	-	392	61,998	22,426	335,286	-	-	-	-				
SCG	SCG3806	Water AMI Pilot	IOU	Cross Cutting	Non-Resource	Not Applicable	-	-	-	-	1,141	-	50,567	-	-	-	-	-				
		Codes & Standards Programs																				
SCG	SCG3724	C&S-Building Codes & Compliance Advocacy	IOU	Cross Cutting	C&S	Not Applicable	209,995	20,668	-	-	328	3,586	18,341	39,200	-	-	-	31				
SCG	SCG3725	C&S-Appliance Standards Advocacy	IOU	Cross Cutting	C&S	Not Applicable	167,482	16,330	-	-	328	7,293	(6,690)	122,104	-	-	-	-				
SCG	SCG3726	C&S-Compliance Enhancement	IOU	Cross Cutting	C&S	Not Applicable	251,207	23,964	-	-	-	10,371	-	181,905	-	-	-	-				
SCG	SCG3727	C&S-Reach Codes	IOU	Cross Cutting	C&S	Not Applicable	85,374	8,205	-	-	-	2,703	-	33,399	-	-	-	-				
SCG	SCG3728	C&S-Planning Coordination	IOU	Cross Cutting	C&S	Not Applicable	128,533	12,662	-	-	-	3,914	-	66,050	-	-	-	-				
		Workforce Education & Training Programs																				
SCG	SCG3729	WE&T-Centerpiec	IOU	Cross Cutting	Non-Resource	Not Applicable	2,548,697	231,422	-	-	-	259,913	-	1,730,930	-	-	-	147,500				
SCG	SCG3730	WE&T-Connections	IOU	Cross Cutting	Non-Resource	Not Applicable	429,952	26,487	-	-	-	19,415	-	290,367	-	-	-	-				
SCG	SCG3731	WE&T-Strategic Planning	IOU	Cross Cutting	Non-Resource	Not Applicable	150,348	7,944	-	-	-	-	-	-	-	-	-	-				
		Statewide DSM Coordination & Integration Program																				
SCG	SCG3734	IDSM-IDSM	IOU	Cross Cutting	Non-Resource	Not Applicable	581 750	60 434	-	-	-	45 314	-	333 269	-	-	-	-				
		Finance Programs																				
SCG	SCG3735	FIN-On-Bi l Financing	IOU	Cross Cutting	Resource	Not Applicable	878 579	68 665	-	-	6	30 209	6 110	138 754	-	-	(127)	6 530				
SCG	SCG3736	FIN-ARRA-Originated Financing	IOU	Cross Cutting	Resource	Not Applicable	1 385 745	127 459	-	-	21 775	75 933	30 440	107 406	-	-	134 562	65 648				
		Local Institutional Partnership Programs																				
SCG	SCG3738	LInstP-CA Department of Corrections Partnership	LGP/SIP	Public	Non-Resource	Not Applicable	256 482	70 737	-	50	-	30 608	-	65 875	-	-	-	3 373				
SCG	SCG3739	LInstP-California Community College Partnership	LGP/SIP	Public	Non-Resource	Not Applicable	372 082	97 523	-	5 221	-	39 254	-	141 032	-	-	-	6 110				
SCG	SCG3740	LInstP-UC/CSU/IOU Partnership	LGP/SIP	Public	Non-Resource	Not Applicable	471 035	124 118	-	1 796	-	43 058	-	145 822	-	-	-	3 456				
SCG	SCG3741	LInstP-State of CA/IOU Partnership	LGP/SIP	Public	Non-Resource	Not Applicable	250 531	66 902	-	198	-	31 398	-	57 371	-	-	-	2 948				
		Local Government Partnership Programs																				
SCG	SCG3742	LGP-LA Co Partnership	LGP/SIP	Public	Non-Resource	Not Applicable	227 492	36 126	-	-	-	40 150	-	73 649	-	-	-	5 338				
SCG	SCG3743	LGP-Kern Co Partnership	LGP/SIP	Public	Non-Resource	Not Applicable	104 789	25 490	-	815	-	28 506	-	31 647	-	-	-	4 238				
SCG	SCG3744	LGP-Riverside Co Partnership	LGP/SIP	Public	Non-Resource	Not Applicable	141 676	20,686	-	-	-	28,560	-	23,470	-	-	-	3,775				
SCG	SCG3745	LGP-San Bernardino Co Partnership	LGP/SIP	Public	Non-Resource	Not Applicable	142,985	28,848	-	-	-	30,885	-	21,259	-	-	-	6,668				
SCG	SCG3746	LGP-Santa Barbara Co Partnership	LGP/SIP	Public	Non-Resource	Not Applicable	123,769	36,261	136	1,451	8	30,846	12,141	55,130	-	-	(346)	14,028				
SCG	SCG3747	LGP-South Bay Cities Partnership	LGP/SIP	Public	Non-Resource	Not Applicable	156,042	39,876	-	18,020	-	34,655	-	72,270	-	-	-	12,171				
SCG	SCG3748	LGP-San Luis Obispo Co Partnership	LGP/SIP	Public	Non-Resource	Not Applicable	102,309	29,742	-	2,924	-	29,619	-	47,312	-	-	-	10,211				
SCG	SCG3749	LGP-San Joaquin Valley Partnership	LGP/SIP	Public	Non-Resource	Not Applicable	115,285	28,406	-	3,134	-	29,418	-	45,854	-	-	-	10,141				
SCG	SCG3750	LGP-Orange Co Partnership	LGP/SIP	Public	Non-Resource	Not Applicable	153,703	38,495	-	13,991	-	33,126	-	26,600	-	-	-	10,698				
SCG	SCG3751	LGP-SEEC Partnership	LGP/SIP	Public	Non-Resource	Not Applicable	147,698	23,230	-	1,943	-	12,490	-	76,225	-	-	-	13,503				
SCG	SCG3752	LGP-Community Energy Partnership	LGP/SIP	Public	Non-Resource	Not Applicable	-	-	-	-	-	-	-	-	-	-	-	-				
SCG	SCG3753	LGP-Desert Cities Partnership	LGP/SIP	Public	Non-Resource	Not Applicable	18,034	4,842	-	981	-	4,984	-	8,213	-	-	-	3,435				
SCG	SCG3754	LGP-Ventura County Partnership	LGP/SIP	Public	Non-Resource	Not Applicable	171,544	39,838	2,415	5,888	(350)	32,845	38,773	82,642	-	-	3,156	13,805				
SCG	SCG3755	LGP-Local Government Energy Efficiency Pilots	LGP/SIP	Public	Non-Resource	Not Applicable	215,000	15,000	-	-	-	-	-	-	-	-	-	-				
SCG	SCG3773	LGP-New Partnership Programs	LGP/SIP	Public	Non-Resource	Not Applicable	288 926	14 641	-	-	-	14	-	311	-	-	-	-				
SCG	SCG3774	LGP-LG Regional Resource Placeholder	LGP/SIP	Public	Non-Resource	Not Applicable	325 955	114 016	-	-	-	79 616	-	183 403	-	-	-	-				
SCG	SCG3776	LGP-Gateway Cities Partnership	LGP/SIP	Public	Non-Resource	Not Applicable	174 765	33 843	-	-	-	35 266	-	66 377	-	-	-	10 254				
SCG	SCG3777	LGP-San Gabriel Valley COG Partnership	LGP/SIP	Public	Non-Resource	Not Applicable	249 015	46 545	-	5 458	-	40 647	-	89 430	-	-	-	31 911				
SCG	SCG3778	LGP-City of Santa Ana Partnership	LGP/SIP	Public	Non-Resource	Not Applicable	-	-	-	-	-	-	-	-	-	-	-	-				
SCG	SCG3779	LGP-West Side Cities Partnership	LGP/SIP	Public	Non-Resource	Not Applicable	139 564	18 356	-	8 401	-	35 770	-	98 132	-	-	-	8 326				
SCG	SCG3780	LGP-City of Simi Valley Partnership	LGP/SIP	Public	Non-Resource	Not Applicable	-	-	-	-	-	-	-	-	-	-	-	-				
SCG	SCG3781	LGP-City of Redlands P lots	LGP/SIP	Public	Non-Resource	Not Applicable	-	-	-	-	-	-	-	-	-	-	-	-				
SCG	SCG3782	LGP-City of Beaumont Programs	LGP/SIP	Public	Non-Resource	Not Applicable	-	-	-	-	-	-	-	-	-	-	-	-				
SCG	SCG3783	LGP-Western Riverside Energy Partnership	LGP/SIP	Public	Non-Resource	Not Applicable	195 427	38 368	-	10 114	-	34 464	-	82 069	-	-	-	8 373				

IOU	Program ID	Program Name (Add rows to include all programs)	Program Implementer (Use D op Down Menu)	Primary Sector (Use Drop Down Menu)	ESPI Program Category (Use D op Down Menu)	Delivery Channel (Use D op Down Menu)	2018 Adopted Budget (EE AL 5183-A) (SW ME&O D.16-09-020 & AL 5203, ESA G-3532, D.16-11-022, D.17-12-009, & AL 5256-A)	2018 Administrative Cost (forecast as per budget Advice Letters)	Administrative				Direct Implementation				PA Administered ME&O		SW ME&O	EM&V		On Bill Financing Loan Pool
									Non-IOU Implementer		IOU		Non-Incentive		Incentives & Rebates							
									2018 Expend tu es f om p e-2018 budgets	2018 Expend tu es f om 2018 Budget	2018 Expend tu es f om p e-2018 budgets	2018 Expend tu es f om 2018 Budget	2018 Expend tu es f om p e-2018 budgets	2018 Expend tu es f om 2018 Budget	2018 Expend tu es f om p e-2018 budgets	2018 Expend tu es f om 2018 Budget	2018 Expend tu es f om p e-2018 budgets	2018 Expend tu es f om 2018 Budget		2018 Expend tu es f om p e-2018 budgets	2018 Expend tu es f om 2018 Budget	
SCG	SCG3801	LGP-NOCC	LGP/SIP	Public	Non-Resource	Not Applicable	152,245	30,812	-	6,083	-	30,964	-	64,498	-	-	-	7,456				
SCG	SCG3802	LGP-SANBAG	LGP/SIP	Public	Non-Resource	Not Applicable	149 600	39 394	-	973	-	31 809	-	46 431	-	-	-	5 267				
		Third Party Program																				
SCG	SCG3756	3P-Energy Challenger	Third Party	Commercial	Non-Resource	Not Applicable	-	-	-	-	-	-	-	-	-	-	-	-				
SCG	SCG3757	3P-Small Industrial Faci ity Upgrades	Third Party	Industrial	Resource	Downstream	1 331 655	36 004	444	24 898	(249)	9 212	32 003	56 414	55 549	-	(36)	858				
SCG	SCG3758	3P-PREPPS	Third Party	Commercial	Resource	Downstream	784 074	30 794	(463)	43 497	(289)	17 621	92 015	132 510	128 553	72 449	(3 934)	39 872				
SCG	SCG3759	3P-On Demand Efficiency	Third Party	Residential	Resource	Downstream	2 545 019	167 031	13	37 483	(267)	500	(118 270)	364 064	262 439	1 667 100	(208)	103 948				
SCG	SCG3760	3P-HERS Rater Training Advancement	Third Party	Residential	Non-Resource	Not Applicable	416 586	75 433	-	26 451	-	8 445	-	344 566	-	-	-	24 788				
SCG	SCG3761	3P-MF Home Tune-Up	Third Party	Residential	Resource	Downstream	-	-	-	-	-	(0)	-	-	-	-	-	-				
SCG	SCG3762	3P-CLEO	Third Party	Residential	Resource	Not Applicable	265 080	23 371	-	18 968	-	10 354	-	234 900	-	18 409	-	13 566				
SCG	SCG3763	3P-MF Direct Therm Savings	Third Party	Residential	Resource	Downstream	2 373 406	226 019	-	207 842	-	15 574	-	28 016	-	2 781 271	-	120 911				
SCG	SCG3764	3P-LivingWise	Third Party	Residential	Resource	Downstream	1 051 552	58 369	-	145 148	-	7 953	-	1 732 063	-	455 257	-	98 000				
SCG	SCG3765	3P-Manufactured Mobile Home	Third Party	Residential	Resource	Downstream	4 071 106	90 000	-	140 869	-	2 415	-	527 919	-	1 788 733	-	103 315				
SCG	SCG3766	3P-Save Gas	Third Party	Commercial	Resource	Downstream	-	-	-	-	-	-	-	-	-	-	-	-				
SCG	SCG3768	3P-CA Sustainability Alliance	Third Party	Cross Cutting	Non-Resource	Not Applicable	440,000	37,513	-	13,588	-	8,981	-	330,072	-	-	-	12,113				
SCG	SCG3769	3P-PoF	Third Party	Cross Cutting	Non-Resource	Not Applicable	330,000	41,196	-	11,989	-	13,888	-	292,990	-	-	-	797				
SCG	SCG3770	3P-PACE	Third Party	Cross Cutting	Non-Resource	Not Applicable	260,265	58,225	-	4,894	-	10,365	-	220,895	-	-	-	20,802				
SCG	SCG3771	3P-Innovative Designs for Energy Efficiency Activities (IDEEA365)	Third Party	Cross Cutting	Resource	Downstream	493,571	61,359	-	86,063	-	81,292	-	345,676	-	-	-	797				
SCG	SCG3793	3P-IDEEA365-Instant Rebates! Point-of-Sale Foodservice Rebate	Third Party	Commercial	Resource	Midstream	1 034 553	68 927	-	76 306	-	6 219	-	947 576	-	954 856	-	76 320				
SCG	SCG3794	3P-IDEEA365-Water Loss Control Program	Third Party	Commercial	Non-Resource	Not Applicable	-	-	-	-	-	14	-	-	-	-	-	180				
SCG	SCG3795	3P-IDEEA365-Commercial Sustainable Development Program	Third Party	Commercial	Non-Resource	Not Applicable	-	-	-	-	-	-	-	-	-	-	-	-				
SCG	SCG3796	3P-IDEEA365-ODE for Campus Housing	Third Party	Commercial	Resource	Downstream	-	-	-	-	-	11	-	139	-	-	-	-				
SCG	SCG3797	3P-IDEEA365-Energy Advantage Program for Small Business	Third Party	Commercial	Non-Resource	Not Applicable	-	-	-	-	-	(0)	-	-	-	-	-	-				
SCG	SCG3798	3P-IDEEA365-Connect	Third Party	Commercial	Non-Resource	Not Applicable	224 255	23 336	-	13 934	-	6 214	-	176 603	-	-	-	21 891				
SCG	SCG3799	3P-IDEEA365-HBEEP	Third Party	Commercial	Non-Resource	Not Applicable	-	-	-	-	-	0	-	-	-	-	-	-				
SCG	SCG3800	3P-IDEEA365-Clear Ice	Third Party	Commercial	Resource	Downstream	-	-	-	-	-	11	-	139	-	-	-	-				
SCG	SCG3804	3P-IDEEA365-On-Premise Ozone Laundry	Third Party	Commercial	Resource	Downstream	754 596	95 950	-	36 267	(190)	15 370	15 692	273 295	4 875	84 565	-	22 776				
		Other Programs																				
SCG	SCG3775	CRM	IOU	Cross Cutting	Non-Resource	Not Applicable	978 500		-	-	-	-	-	-	-	-	-	-				
		RENs and CCA (Non-IOU Programs)					4 337 000															
SCG	SCG3784	SoCalREN - Home Upgrade Program	REN/CCA	Residential	Not Applicable	Not Applicable			-	-	-	(110 000)	-	(1 897 149)	-	2 870 000	-	6 257				
SCG	SCG3785	SoCalREN - Finance	REN/CCA	Commercial	Not Applicable	Not Applicable			-	-	-	(17,305)	-	8,437	-	-	-	(21,368)				
SCG	SCG3786	SoCalREN - REC	REN/CCA	Commercial	Not Applicable	Not Applicable			-	-	-	(295,660)	-	(1,643,035)	-	-	-	(104,272)				
SCG	SCG3839	SoCalREN - WET	REN/CCA	Commercial	Not Applicable	Not Applicable			-	-	-	(12,470)	-	(29,617)	-	-	-	-				
		Subtotal					**98,983,573**	**8,292,872**	**2,545**	**975,636**	**(41,667)**	**5,412,962**	**3,548,768**	**37,071,551**	**1,854,840**	**33,591,373**	**474,912**	**4,228,604**				
		EM&V - IOU					1 145 553	1 145 553												96 475	357 155	
		EM&V - CPUC Staff					3 020 447	3 020 447												501 519	107 989	
		OBF Loan Pool [2]					-	-														-
		Total EE Portfolio Expenditures [3]					**103,149,573**	**12,458,872**	**2,545**	**975,636**	**(41,667)**	**5,412,962**	**3,548,768**	**37,071,551**	**1,854,840**	**33,591,373**	**474,912**	**4,228,604**	-	**597,994**	**465,144**	
SCG	SCG3733	SW ME&O (Energy Efficiency portion only) [4]					2 104 539												2 968 712			
SCG	SCG3737	FIN-New Financing Offerings [4]									(370)	39 550	7 414	157 110			38 987	65 768				
SCG	SCG3803	FIN-California Hub for EE Financing [4]									183 109		303 125				54 713					
-		Energy Savings Assistance Program (ESA) [4]																				

[1] Information reported in the 2018 SoCalGas Energy Efficiency Annual Report, found at https://cedars.sound-data.com/upload/confirmed-dashboard/SCG/2018/.
[2] Funding for the SoCalGas' On-Bill Financing Program loan pool recovered in gas transportation rates transportation rates and are not included in the 2018 portfolio expenditures.
[3] Includes budget and expenditures associated with SoCalREN.
[4] Expenditures outside of the portfolio total. SW ME&O program funds authorized in D.16-09-020. SW Financing Pilots program funds authorized in D.13-09-044 and AL 5205.
[5] The 2018 encumbered funds for SCG3737 FIN-New Finance Offerings is $2,126,499.
[6] For program SCG3703 and SCG3763, year-end budget variance is offset with the adjusted incentive payments released on January 2019. A net credit balance posted in early 2019.
[7] For program SCG3717, SCG3771, and SCG3779, year-end budget variance offset with retroactive labor correction made on the following year.
[8] For program SCG3804 and SCG3808, year-end budget variance is offset with the adjusted professional service payments released on January 2019. The net credit balance on the transaction is posted in early 2019.

SECTION 4
COST-EFFECTIVENESS

The purpose of this table is to provide an annual update on the cost-effectiveness of the portfolio of programs being implemented in the 2018 program year. The targets above are at the portfolio level, so an annual average is used in order to compare the current annual estimates of cost-effectiveness with the cost-effectiveness levels that were estimated at the time the portfolios were adopted. The report includes the SoCalGas results and goals.

Table 4

A	B	C	D	E	F	G	H	I	J
Table 4 *Cost Effectiveness (Net)*									
Annual Results	**Total Cost to Billpayers (TRC)**	**Total Savings to Billpayers (TRC/PAC)**	**Net Benefits to Billpayers (TRC)**	**TRC Ratio**	**Total PAC Cost**	**PAC Ratio**	**PAC Cost per kW Saved ($/kW)[1]**	**PAC Cost per kWh Saved ($/kWh)**	**PAC Cost per therm Saved ($/therm)**
2018 TOTAL [1][2][3][4]	**$ 249,753,237**	**$ 448,781,033**	**$ 199,027,796**	**1.80**	**$ 87,172,348**	**5.15**	**N/A**	**N/A**	**$ 0.25**

[1] Portfolio targets were not established for 2017 in SoCalGas' Compliance Advice Letter 5183-A, approved per D 18-05-041 Ordering Paragraph 14, on June 28, 2018

[2] Results from activity installed in 2018 only

[3] Includes SoCalGas' 2018 shareholder incentive payment of $613,255 as proposed in Draft Resolution E-4979, issued March 18, 2019

[4] Does not include costs and benefits associated with Low Income Energy Savings Assistance Programs, Emerging Technologies Programs, and SoCalREN

SECTION 5
BILL PAYER IMPACTS

The purpose of this table is to report the annual impact of the energy efficiency activities on customer bills relative to the level without the energy efficiency programs, originally required by Rule X.3 of the Energy Efficiency Policy Manual Version 3, adopted in D.05-04-051. Impacts for this section are based on gross energy efficiency activities for 2018.

Table 5

A	B	C	D	E
Table 5: *Ratepayer Impacts (Gross)*				
2018	**Electric Average Rate (Res and Non-Res) $/kwh**	**Gas Average Rate (Core and Non-Core) $/therm**	**Average First Year Bill Savings ($)**	**Average Lifecyle Bill Savings ($)**
SoCalGas	**N/A**	**$1.10**	**$63,529,556**	**$189,307,062**

[1] SoCalGas' 12-month residential weighted average transportation rate for 2018 is $0.74713 per therm.
[2] SoCalGas' 12-month average procurement rate in 2018 was $0.35027.
[3] Ratepayer impacts are derived from 2018 gross savings accomplishments and the average rate.
[4] The average First Year Bill Savings are calculated by the 2018 first year savings multiplied by the Gas Average Rate.
[5] The average Lifecycle Bill Savings are calculated by the 2018 lifecycle savings multiplied by the Gas Average Rate.

SECTION 6
SAVINGS BY END-USE

The purpose of this table is to show annual portfolio savings by Residential and Non-Residential end-uses and those savings attributable to the Low Income Energy Savings Assistance Program, and Codes and Standards work.

Table 6

A	B	C	D	E	F	G
Table 6:						
Annual Savings By End-Use 2018 Only (Net) [1][2]						
Use Category	**GWH**	**% of Total**	**MW**	**% of Total**	**MMTh**	**% of Total**
Appliance or Plug Load	0.67	6%	0.14	10%	1.53	3%
Commercial Refrigeration	0.00	0%	0.00	0%	0.06	0%
Codes & Standards	0.00	0%	0.00	0%	32.45	63%
Food Service	0.04	0%	0.00	0%	1.27	2%
HVAC	9.95	85%	1.06	71%	1.96	4%
Irrigation	0.00	0%	0.00	0%	0.00	0%
Lighting	-	-	-	-	-	-
Non-Savings Measure	0.00	0%	0.00	0%	0.00	0%
Process Distribution	-	-	-	-	0.05	0%
Process Drying	-	-	-	-	-	-
Process Heat	0.00	0%	0.00	0%	0.61	1%
Process Refrigeration	-	-	-	-	-	-
Recreation	0.00	0%	0.00	0%	0.15	0%
Service	0.00	0%	0.00	0%	0.00	0%
Service and Domestic Hot Water	0.43	4%	0.00	0%	5.85	11%
Whole Building	0.64	5%	0.28	19%	6.19	12%
Low Income Energy Efficiency	-	-	-	-	1.65	3%
SoCalREN	-	-	-	-	0.05	0%
SoCalGas ANNUAL PORTFOLIO	11.7	100%	1.5	100%	51.8	100%

[1] Results from activity installed in 2018 only.
[2] Includes savings associated with SoCalREN and Low Income Energy Savings Assistance programs.
[3] Net Codes & Standards program savings for 2018 includes savings from market effects (5%) as calculated in CEDARS. Gross Codes & Standards program savings without market effects is 29,351,882 therms.
[4] Net Energy Savings Assistance program savings for 2018 includes savings from market effects (5%) as calculated in CEDARS. Gross Codes & Standards program savings without market effects is 1,575,510 therms.

SECTION 7
COMMITMENTS

The purpose of this table is to allow the utilities to report commitments which will be produced within the 2019 program year (commitments entered into during the previous and current program cycle but which are not expected to produce installed savings until after December 2018). This information will be useful for the Commission's resource planning purposes by enabling program activities to be linked to a particular funding cycle.

Table 7

A	B	C	D	E
Table 7 *Commitments*				
Commitments Made in the Past with Expected Implementation after December 2010-2012				
	Committed Funds	**Expected Energy Savings (Net)**		
2010-2012 [2][5]	**$**	GWH	MW	MMth
Resource	853,424	0	0	0.1
Non-Resource	103,435	0	0	0
Codes & Standards	-	0	0	0
SoCalGas Total	956,859	0.0	0.0	0.1
Commitments Made in the Past Year with Expected Implementation after December 2015				
	Committed Funds	**Expected Energy Savings (Net)**		
2013-2015 [1]	**$**	GWH	MW	MMth
Resource	-	0	0	0
Non-Resource	-	0	0	0
Codes & Standards	-	0	0	0
SoCalGas Total	-	0.0	0.0	0.00
Commitments Made in the Past Year with Expected Implementation after December 2016				
	Committed Funds	**Expected Energy Savings (Net)**		
2016 [1]	**$**	GWH	MW	MMth
Resource	-	0	0	0
Non-Resource	-	0	0	0
Codes & Standards	-	0	0	0
SoCalGas Total	-	0.0	0.0	0.0
Commitments Made in the Past Year with Expected Implementation after December 2018				
	Committed Funds	**Expected Energy Savings (Net)**		
2013-2017 [1][3][5]	**$**	GWH	MW	MMth
Resource	11,917,292	0	0	2.9
Non-Resource	199,582	0	0	0
Codes & Standards	57,694	0	0	0
SoCalGas Total	12,174,568	0.0	0.0	2.9
Commitments Made in the Past Year with Expected Implementation after December 2018				
	Committed Funds	**Expected Energy Savings (Net)**		
2018 [4][5][6]	**$**	GWH	MW	MMth
Resource	2,091,561	0	0	0.6
Non-Resource	8,356,116	0	0	0
Codes & Standards	-	0	0	0
SoCalGas Total	10,447,677	0.0	0.0	0.6

[1] SoCalGas recognizes 2017 to be a bridge period of the 2013-2017 funding cycle based on D.15-10-028. D.15-10-028 defers the accounting issues associated with the Rolling Portfolio to future disposition, and instead, refers to 2017 as a status quo year for accounting items.

[2] Committed and encumbered funds are associated with the 2010-2012 program cycle as of 12/31/2018.

[3] Committed and encumbered funds are associated with the 2013-2017 program cycle as of 12/31/2018.

[4] Committed and encumbered funds are associated with the 2018 program cycle as of 12/31/2018.

[5] Non-Resource committed and encumbered funds include funds encumbered from Evaluation, Measurement & Verification programs.

[6] Non-Resource committed and encumbered funds include funds encumbered from SoCalREN programs.

SECTION 8
SHAREHOLDER PERFORMANCE INCENTIVES

In March 2019, the Commission issued Draft Resolution E-4979 on March 18, 2019 which proposed to award SoCalGas an earnings amount of $2.31 million, calculated from the results of the 2016 and 2017 program period. On April 25, 2019, the Commission withheld Draft Resolution E-4979 from the April 25th Commission Business Meeting, pending further changes.

For program year 2018, the IOUs will file their respective ESPI advice letters on September 2nd of this year. The first 2018 program period ESPI award claims are expected to be approved by the Commission no later than December 31 of this year. The second 2018 program period ESPI awards claims will be submitted for approval to the Commission on September 1 of the following year. Table 8 is provided to inform the Commission of ESPI awards received for the prior program years of 2013-2019.

Table 8

A	B	C	D	E	F	G	H
Table 8							
Shareholder Incentives (ESPI)							
Program Year	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Forecast [1][6][7]						$ 4,310,258	$ 3,000,000
Actual [1][2][3][4][5][6]	$ 3,689,563	$ 4,041,753	$ 2,714,022	$ 2,784,207	$ 1,176,339		

[1] Excludes offset $3.7 million against approved awards for energy efficiency shareholder incentives in 2017 and 2018 from the 2006-2008 EE Risk/Reward Incentive Mechanism Settlement Agreement.
[2] ESPI payment authorized for PY 2013 in 2014 and 2015 from respective Resolutions G-3497 and G-3510.
[3] ESPI payment authorized for PY 2014 in 2015 and 2016 from respective Resolutions G-3510 and G-4807.
[4] ESPI payment authorized for PY 2015 in 2016 and 2017 from respective Resolutions G-4807 and G-4897.
[5] Partial ESPI payment authorized for PY 2016 in Resolution G-4897.
[6] Remaining partial ESPI payment for PY 2016 and initial partial ESPI payment for PY 2017 from Draft Resolution E-4979, issued March 8, 2019. The second ESPI award claim will be submitted to the Commission for approval on September 2, 2019.
[7] SoCalGas' compliance Advice Letter 5183-A included the forecasted ESPI award of $4,310,258 for PY 2017. SoCalGas' compliance Advice Letter 5349-A included the forecasted ESPI award of $3,000,000 for PY 2018.

Appendix A – SoCalGas Program Numbers

Program ID	Program Name	Date Added (new programs)	Date Removed
SCG3701	RES-Energy Advisor		
SCG3702	RES-Plug Load and Appliances		
SCG3703	RES-Plug Load and Appliances - POS		
SCG3704	RES-MFEER		
SCG3705	RES-Home Upgrade Program		
SCG3706	RES-Residential HVAC		
SCG3707	RES-RNC		
SCG3708	COM-Energy Advisor		
SCG3709	COM-CEI		
SCG3710	COM-Calculated Incentives		
SCG3711	COM-Deemed Incentives		
SCG3712	COM-NonRes HVAC		
SCG3713	IND-Energy Advisor		
SCG3714	IND-CEI		
SCG3715	IND-Calculated Incentives		
SCG3716	IND-Deemed Incentives		
SCG3717	AG-Energy Advisor		
SCG3718	AG-CEI		
SCG3719	AG-Calculated Incentives		
SCG3720	AG-Deemed Incentives		
SCG3721	ET-Technology Development Support		
SCG3722	ET-Technology Assessment Support		
SCG3723	ET-Technology Introduction Support		
SCG3724	C&S-Building Codes & Compliance Advocacy		
SCG3725	C&S-Appliance Standards Advocacy		
SCG3726	C&S-Compliance Enhancement		
SCG3727	C&S-Reach Codes		
SCG3728	C&S-Planning Coordination		
SCG3729	WE&T-Centergies		
SCG3730	WE&T-Connections		
SCG3731	WE&T-Strategic Planning		
SCG3734	IDSM-IDSM		
SCG3735	FIN-On-Bill Financing		
SCG3736	FIN-ARRA-Originated Financing		
SCG3737	FIN-New Financing Offerings		
SCG3738	LInstP-CA Department of Corrections Partnership		
SCG3739	LInstP-California Community College Partnership		
SCG3740	LInstP-UC/CSU/IOU Partnership		
SCG3741	LInstP-State of CA/IOU Partnership		
SCG3742	LGP-LA Co Partnership		
SCG3743	LGP-Kern Co Partnership		
SCG3744	LGP-Riverside Co Partnership		
SCG3745	LGP-San Bernardino Co Partnership		

Program ID	Program Name	Date Added (new programs)	Date Removed
SCG3746	LGP-Santa Barbara Co Partnership		
SCG3747	LGP-South Bay Cities Partnership		
SCG3748	LGP-San Luis Obispo Co Partnership		
SCG3749	LGP-San Joaquin Valley Partnership		
SCG3750	LGP-Orange Co Partnership		
SCG3751	LGP-SEEC Partnership		
SCG3753	LGP-Desert Cities Partnership		
SCG3754	LGP-Ventura County Partnership		
SCG3755	LGP-Local Government Energy Efficiency Pilots		
SCG3757	3P-Small Industrial Facility Upgrades		
SCG3758	3P-PREPPS		
SCG3759	3P-On Demand Efficiency		
SCG3760	3P-HERS Rater Training Advancement		
SCG3762	3P-CLEO		
SCG3763	3P-MF Direct Therm Savings		
SCG3764	3P-LivingWise		
SCG3765	3P-Manufactured Mobile Home		
SCG3768	3P-CA Sustainability Alliance		
SCG3769	3P-PoF		
SCG3770	3P-PACE		
SCG3771	3P-Innovative Designs for Energy Efficiency Activities (IDEEA365)		
SCG3773	LGP-New Partnership Programs		
SCG3774	LGP-LG Regional Resource Placeholder		
SCG3775	CRM		
SCG3776	LGP-Gateway Cities Partnership		
SCG3777	LGP-San Gabriel Valley COG Partnership		
SCG3779	LGP-West Side Community Energy Partnership		
SCG3783	LGP-Western Riverside Energy Partnership		
SCG3793	3P - IDEEA365 - Instant Rebates! Point of Sale FoodService Equipment Program		
SCG3796	3P-IDEEA365-On Demand Efficiency for Campus Housing		December 2017
SCG3797	3P-IDEEA365-Energy Advantage Program for Small Business		December 2017
SCG3798	3P-IDEEA365-Connect		
SCG3799	3P-IDEEA365-HBEEP		December 2017
SCG3800	3P-IDEEA365-Clear Ice		December 2017
SCG3801	LGP – NOCC		
SCG3802	LGP – SANBAG		
SCG3803	SW-FIN-California Hub for EE Financing		
SCG3804	3P-IDEEA365-On-Premise Ozone Laundry		
SCG3805	COM-Direct Install Program		
SCG3806	Water AMI Pilot		

Program ID	Program Name	Date Added (new programs)	Date Removed
SCG3807	COM-HOPPS-CRR Program		
SCG3808	RES-HOPPS-CWHMBS Program		
SCG3809	COM-AB793-CEMTL Program		
SCG3810	RES-AB793-REMTS Program		

Appendix B.1 – Updated Monthly Report

The Updated Monthly Report can be found on the CEDARS website:
https://cedars.sound-data.com/monthly-reports/statewide-dashboard

Appendix B.2 – Updated Quarterly Report

The Updated Quarterly Report can be found on the EEStats website:
http://eestats.cpuc.ca.gov/Views/Documents.aspx

Appendix C – Third-Party Contract Information

Program ID #	Program Name	Primary Sector	Sector	Delivery Channel	Vendor	Start	Length	Dollar Value
SCG3701	RES-Energy Advisor	Residential	Residential	Resource	DNV GL Energy Services USA Inc.	1/1/2011	8 years, 10 months	
SCG3702	RES-Plug Load and Appliances	Residential	Residential	Resource	Enervee Corporation	12/21/2017	3 Years	
SCG3705	Home Ugrade Program	Residential	Residential	Resource	ICF Resources LLC	7/1/2013	6 Years, 9 Months	
SCG3757	3P-Small Industrial Facility Upgrades	Non-Res	Industrial	Resource	CLEAResult Consulting Inc.	2/1/2010	10 years, 3 months	
SCG3758	3P-PREPPS	Non-Res	Commercial	Resource	CLEAResult Consulting Inc.	3/1/2010	9 years, 1 months	
SCG3759	3P-On Demand Efficiency	Residential	Residential	Resource	Benningfield Group Inc.	3/1/2010	10 years, 2 months	
SCG3760	3P-HERS Rater Training Advancement	Residential	Residential	Non-Resource	CLEAResult East Operating LLC	6/1/2010	9 years, 11 months	
SCG3762	3P-CLEO	Residential	Residential	Resource	Global Energy Solutions Inc.	3/1/2010	10 years, 2 months	
SCG3763	3P-MF Direct Therm Savings	Residential	Residential	Resource	Honeywell International	3/1/2010	10 years, 2 months	
SCG3764	3P-LivingWise	Residential	Residential	Resource	Resource Action Plan LLC	3/1/2010	10 years, 2 months	
SCG3765	3P-Manufactured Mobile Home	Residential	Residential	Resource	Eagle Systems International Inc. dba Synergy Corporation	3/1/2010	10 years, 2 months	
SCG3768	3P-CA Sustainability Alliance	Cross-Cutting	Residential, Commercial, Industrial, Agricultural	Non-Resource	Navigant Consulting Inc.	3/1/2010	9 years, 2 months	

Program ID #	Program Name	Primary Sector	Sector	Delivery Channel	Vendor	Start	Length	Dollar Value
SCG3769	3P-PoF	Cross-Cutting	Residential, Commercial, Industrial, Agricultural	Non-Resource	Navigant Consulting Inc.	3/1/2010	9 years, 2 months	[redacted]
SCG3770	3P-PACE	Cross-Cutting	Residential and Commercial	Non-Resource	Pacific Asian Consortium in Employment	2/1/2010	9 years, 3 months	
SCG3793	3P-IDEEA365-Instant Rebates! Point-of-Sale Foodservice Rebate	Non-Res	Commercial	Resource	Energy Solutions	1/1/2014	6 years, 4 months	
SCG3798	3P-IDEEA365-Connect	Non-Res	Commercial, Industrial	Non-Resource	Waypoint Building Group Inc.	10/1/2014	4 years, 6 months	
SCG3804	3P-IDEEA365-On-Premise Ozone Laundry	Non-Res	Commercial	Resource	Blackstone Research Solutions Inc.	1/1/2015	7 years, 4 months	
SCG3807	HOPPS-CRR	Non-Res	Commercial	Resource	Fisher Nickel Inc.	3/31/2017	3 Years	
SCG3808	RES-HOPPS-CWHMBS Program	Residential	Residential	Resource	DNV GL Energy Services USA Inc.	5/1/2017	2 years, 8 months	
SCG3809	COM-AB793-CEMTL Program	Non-Res	Commercial	Resource	Wildan Energy Solutions	7/25/2018	2 years, 8 months	
SCG3810	RES-AB793-REMTS Program	Residential	Residential	Resource	ICF Resources LLC	12/20/2018	3 years	
							Total	**$151,726,422**

Compliance with D.18-05-041

- Program administrators must also assess the relative success of implementers' strategies, for purposes of identifying lessons learned and best practices for maximizing the contribution of energy efficiency in disadvantaged communities. These assessments shall be included in the program administrators' annual reports. (OP 11, p. 184).

- *SoCalGas is currently undergoing solicitations and therefore this information will be forthcoming in SoCalGas' 2019 Annual Report.*

- Investor owned utilities must track the number and proportion of third parties that forego the option of using utility account representatives. The utilities must include this information in their annual reports. (OP 17, p. 185)
  - *SoCalGas is currently undergoing solicitations and therefore this information will be forthcoming in SoCalGas' 2019 Annual Report.*

Appendix D – Updated Quarterly Report

Appendix D – Metrics; reference as a separate file uploaded in to EEstats as part of the package of documents to be submitted for the annual report.

Southern California Gas
Energy Efficiency Sector Metrics with Targets

Attachment A

Southern California Gas
Energy Efficiency Sector Metrics with Targets

Energy Division Template

Spreadsh eet Index	PA	AttA Page	AttA Order	Method Code	Units of Measurement	Metric Type	Metr c/ Ind cator	Business Plan Att A Descript on	Metric	Sector	Basel ne			Actual			Short Term Target			M d Term Target (2021-2023) Cumulative	Long Term Target (2024-2025) Cumulative	Methodology	Key Defin tions	Proxy Explanat on
											Year	Numerator	Denominator	2016	2017	2018	2018	2019	2020					
0	SCG	A03	PL1	G	MT CO2eq	GHG	Met c	RSF2-G - G eenhouse gasses (MT CO2eq) Net kWh sav ngs, epo ted on an annual bas s	CO2-equ valent of net annual kWh sav ngs	Po tfol o Level (PL)– All Secto s	2016	N/A	N/A	332,393	377 933	457,243	471,629	492,135	553 651	1 866,010	1,261 095	Pe CEDARS	None	
5	SCG	A02	PL1	S1	F st yea annual The m g oss	S1 Ene gy Sav ngs	Met c	PL1-S1- F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net)	F st yea annual The m g oss	Po tfol o Level (PL)– All Secto s	2016	N/A	N/A	38 456,156	39,877 543	57 831,463	52,000,000	55,000,000	61,000 000	206 000,000	141,000 000	N/A	None	
6	SCG	A02	PL1	S1	F st yea annual The m net	S1 Ene gy Sav ngs	Met c	PL1-S1- F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net)	F st yea annual The m net	Po tfol o Level (PL)– All Secto s	2016	N/A	N/A	32 419,727	35,991 671	51 784,797	46,000,000	48,000,000	54,000 000	182 000,000	123,000 000	N/A	None	
11	SCG	A02	PL1	S1	L fecycle ex-ante The m g oss	S1 Ene gy Sav ngs	Met c	PL1-S1- F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net)	L fecycle ex-ante The m g oss	Po tfol o Level (PL)– All Secto s	2016	N/A	N/A	480 467,409	522,106 297	604 191,232	693,662,150	726,398,072	815,488 291	2,751 030,225	1,865,099 063	N/A	None	
12	SCG	A02	PL1	S1	L fecycle ex-ante The m net	S1 Ene gy Sav ngs	Met c	PL1-S1- F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net)	L fecycle ex-ante The m net	Po tfol o Level (PL)– All Secto s	2016	N/A	N/A	422 174,997	475,290 840	545 145,756	581,627,763	603,160,246	681,047 027	2,291 689,239	1,540,199 340	N/A	None	
17	SCG	A02	PL2	S3	F st yea annual The m g oss	S3 DAC Sav ngs	Met c	PL2-S3- F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net) n d sadvantaged commun t es	F st yea annual The m g oss n D sadvantaged Commun t es	Po tfol o Level (PL)– All Secto s	2016	N/A	N/A	4 336,520	2,496 127	14 281,205	7,220,540	8,053,679	8,627 943	30 532,582	22,353 104	N/A	D.18-05-041 DAC = B ll accounts n census t acts co espond ng to census t acts n the top qua t le of Ca Env o5c een 3.0 sco es.	
18	SCG	A02	PL2	S3	F st yea annual The m net	S3 DAC Sav ngs	Met c	PL2-S3- F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net) n d sadvantaged commun t es	F st yea annual The m net n D sadvantaged Commun t es	Po tfol o Level (PL)– All Secto s	2016	N/A	N/A	2 665,824	1,580 862	11 506,144	5,395,057	5,934,562	6,488 234	22 942,524	16,569 977	N/A	D.18-05-041 DAC = B ll accounts n census t acts co espond ng to census t acts n the top qua t le of Ca Env o5c een 3.0 sco es.	
23	SCG	A02	PL2	S3	L fecycle ex-ante The m g oss	S3 DAC Sav ngs	Met c	PL2-S3- F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net) n d sadvantaged commun t es	L fecycle ex-ante The m g oss n D sadvantaged Commun t es	Po tfol o Level (PL)– All Secto s	2016	N/A	N/A	56 204,869	28,735 742	75 508,724	113,746,627	125,121,289	136,794 615	483 708,495	349,352 958	N/A	D.18-05-041 DAC = B ll accounts n census t acts co espond ng to census t acts n the top qua t le of Ca Env o5c een 3.0 sco es.	
24	SCG	A02	PL2	S3	L fecycle ex-ante The m net	S3 DAC Sav ngs	Met c	PL2-S3- F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net) n d sadvantaged commun t es	L fecycle ex-ante The m net n D sadvantaged Commun t es	Po tfol o Level (PL)– All Secto s	2016	N/A	N/A	33 996,508	17,940 391	50 636,473	45,255,195	49,780,714	54,425 059	192 448,099	138,993 451	N/A	D.18-05-041 DAC = B ll accounts n census t acts co espond ng to census t acts n the top qua t le of Ca Env o5c een 3.0 sco es.	
29	SCG	A02	PL3	S4	F st yea annual The m g oss	S4 Ha d to each ma kets	Met c	PL3-S4 - F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net) n ha d-to- each ma kets	F st yea annual The m g oss	Po tfol o Level (PL)– All Secto s	2016	N/A	N/A	5 427,644	4,382 279	15 684,662	8,969,956	10,004,950	10,715 032	37 737,334	27,549 361	N/A	D p. 43 - Resolut on G-3497, mod f ed to nclude d sadvantaged commun t es (as des gnated by CalEPA) n the geog aph c c te a fo ha d to each custome s. w th mod f cat on. Geog aph cally, SoCalGas' ha d-to- each a eas a e d sadvantaged commun t es othe than the G eate Los Angeles A ea (Los Angeles, O ange, San Be na d no, R ve s de, and Ventu a count es)	
30	SCG	A02	PL3	S4	F st yea annual The m net	S4 Ha d to each ma kets	Met c	PL3-S4 - F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net) n ha d-to- each ma kets	F st yea annual The m net	Po tfol o Level (PL)– All Secto s	2016	N/A	N/A	3 331,000	2,781 629	12 468,382	6,690,982	7,360,080	8,044 257	46 127,385	33,220 454	N/A	D p. 43 - Resolut on G-3497, mod f ed to nclude d sadvantaged commun t es (as des gnated by CalEPA) n the geog aph c c te a fo ha d to each custome s. w th mod f cat on. Geog aph cally, SoCalGas' ha d-to- each a eas a e d sadvantaged commun t es othe than the G eate Los Angeles A ea (Los Angeles, O ange, San Be na d no, R ve s de, and Ventu a count es)	
35	SCG	A02	PL3	S4	L fecycle ex-ante The m g oss	S4 Ha d to each ma kets	Met c	PL3-S4 - F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net) n ha d-to- each ma kets	L fecycle ex-ante The m g oss	Po tfol o Level (PL)– All Secto s	2016	N/A	N/A	66 223,534	46,307 998	86 159,058	133,023,256	146,325,582	159,927 686	562 807,460	405,327 961	N/A	D p. 43 - Resolut on G-3497, mod f ed to nclude d sadvantaged commun t es (as des gnated by CalEPA) n the geog aph c c te a fo ha d to each custome s. w th mod f cat on. Geog aph cally, SoCalGas' ha d-to- each a eas a e d sadvantaged commun t es othe than the G eate Los Angeles A ea (Los Angeles, O ange, San Be na d no, R ve s de, and Ventu a count es)	
36	SCG	A02	PL3	S4	L fecycle ex-ante The m net	S4 Ha d to each ma kets	Met c	PL3-S4 - F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net) n ha d-to- each ma kets	L fecycle ex-ante The m net	Po tfol o Level (PL)– All Secto s	2016	N/A	N/A	40 097,051	28,839 247	57 871,676	52,978,199	58,276,019	63,693 230	224 145,210	161,427 002	N/A	D p. 43 - Resolut on G-3497, mod f ed to nclude d sadvantaged commun t es (as des gnated by CalEPA) n the geog aph c c te a fo ha d to each custome s. w th mod f cat on. Geog aph ca ly, SoCalGas' ha d-to- each a eas a e d sadvantaged commun t es othe than the G eate Los Angeles A ea (Los Angeles, O ange, San Be na d no, R ve s de, and Ventu a count es)	
39	SCG	A02	PL4	LC	PAC Level zed Cost ($/the m)	Cost pe un t saved	Met c	PL4-LC - Level zed cost of ene gy eff c ency pe kWh, the m and kW (use both TRC and PAC)	PAC Level zed Cost ($/the m)	Po tfol o Level (PL)– All Secto s	2016	48,394 327	111,920,132	0.43	0.42	0 51	0.43	0 43	0.43	0.43	0.43	Pe CEDARS	None	
42	SCG	A02	PL4	LC	TRC Level zed Cost ($/the m)	Cost pe un t saved	Met c	PL4-LC - Level zed cost of ene gy eff c ency pe kWh, the m and kW (use both TRC and PAC)	TRC Level zed Cost ($/the m)	Po tfol o Level (PL)– All Secto s	2016	79,173 600	111,920,132	0.71	0.64	0 62	0.71	0 71	0.71	0.71	0.71	Pe CEDARS	None	
47	SCG	A02	RSF1	S1	F st yea annual The m g oss	S1 Ene gy Sav ngs	Met c	RSF1-S1-F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net) fo S ngle Fam ly Custome s	F st yea annual The m g oss	Res dent al (RSF)	2016	N/A	N/A	1 963,544	2,469 179	13 518,599	1,145,401	1,145,401	1,145 401	6 636,779	6,970 582	Pe CEDARS	None	
48	SCG	A02	RSF1	S1	F st yea annual The m net	S1 Ene gy Sav ngs	Met c	RSF1-S1-F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net) fo S ngle Fam ly Custome s	F st yea annual The m net	Res dent al (RSF)	2016	N/A	N/A	1 266,929	1,608 285	10 751,506	739,042	739,042	739 042	4 282,219	4,497 597	Pe CEDARS	None	
53	SCG	A02	RSF1	S1	L fecycle ex-ante The m g oss	S1 Ene gy Sav ngs	Met c	RSF1-S1-F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net) fo S ngle Fam ly Custome s	L fecycle ex-ante The m g oss	Res dent al (RSF)	2016	N/A	N/A	25 538,464	30,293 953	68 232,268	26,815,387	27,070,772	27,836 926	95 769,240	66,400 006	Pe CEDARS	None	
54	SCG	A02	RSF1	S1	L fecycle ex-ante The m net	S1 Ene gy Sav ngs	Met c	RSF1-S1-F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net) fo S ngle Fam ly Custome s	L fecycle ex-ante The m net	Res dent al (RSF)	2016	N/A	N/A	16 610,078	18,746 836	44 266,452	17,440,582	17,606,682	18,104 985	62 287,792	43,186 202	Pe CEDARS	None	
55	SCG	A03	RSF2	G	MT CO2eq	GHG	Met c	RSF2-GG eenhouse gasses (MT CO2eq) Net kWh sav ngs, epo ted on an annual bas s	CO2-equ valent of net annual kWh sav ngs	Res dent al (RSF)	2016	N/A	N/A	17,000	17 521	65,310	29,749	29,749	29 749	57,459	60 349	Pe CEDARS	Def n t on S ngle fam ly a e def ned as b ll account on GR ates, w th dwell ng code of s ngle fam ly home o s ngle fam ly dwell ng.	
58	SCG	A03	RSF3	D1-D	L fecycle NET The ms	D1 Depth of nte vent ons Pe downst eam pa t c pant	Met c	RSF3-D1D - Ave age sav ngs pe pa t c pant n both opt- n and opt-out p og ams (b oken down by downst eam, m dst eam and upst eam, as feas ble)	Ave age l fecycle ex-ante The m net sav ngs pe pa t c pant - Opt- n - Downst eam	Res dent al (RSF)	2016	12,324 106	71,113	173	154	71	175	177	179	184	187	D1D Downst eam methodology- Nume ato Total downst eam sav ngs cla medDenom nato Total numbe of downst eam pa t c pants	Pe ED "Ene gy sav ngs" = l fecycle NET sav ngs.	
61	SCG	A03	RSF3	D1-M	L fecycle NET The ms	D1 Depth of nte vent ons Pe m dst eam pa t c pant	Met c	RSF3-D1M - Ave age sav ngs pe pa t c pant n both opt- n and opt-out p og ams (b oken down by downst eam, m dst eam and upst eam, as feas ble)	Ave age l fecycle ex-ante The m net sav ngs pe pa t c pant - Opt- n - M dst eam	Res dent al (RSF)	2016	1,851 854	29,126	64	48	32	64	65	65	67	69	D1M M dst eam methodology – Nume ato Total m dst eam sav ngs cla med Denom nato numbe of m dst eam equ pment ebated * S ngle fam ly pa t c pat on ate fo PLA	Pe ED "Ene gy sav ngs" = l fecycle NET sav ngs.	
64	SCG	A03	RSF3	D1-O	L fecycle NET The ms	D1 Depth of nte vent ons Pe opt out pa t c pant	Met c	RSF3-D1O - Ave age sav ngs pe pa t c pant n both opt- n and opt-out p og ams (b oken down by downst eam, m dst eam and upst eam, as feas ble)	Ave age l fecycle ex-ante The m net sav ngs pe pa t c pant - Opt-out	Res dent al (RSF)	2016	-	-	-	-	-	4	4	4	4	4	D1O Methodology Only ex post sav ngs can be cla med. Pe pa t c pant sav ngs w ll be calculated n the EM&V study.	D1O Key Def n t ons 1) The only opt-out p og am s the Home Ene gy Repo t us ng soc al no m ng th ough ne ghbo hood compa sons 2) Pe ED "Ene gy sav ngs" = l fecycle NET sav ngs.	
67	SCG	A03	RSF3	D1-U	L fecycle NET The ms	D1 Depth of nte vent ons Pe upst eam pa t c pant	Met c	RSF3-D1U- Ave age sav ngs pe pa t c pant n both opt- n and opt-out p og ams (b oken down by downst eam, m dst eam and upst eam, as feas ble)	Ave age l fecycle ex-ante The m net sav ngs pe pa t c pant - Opt- n - Upst eam	Res dent al (RSF)	2016	2,434 118	2,887	843	751	1,422	835	826	818	793	776	D1M Upst eam methodology – Nume ato Total upst eam sav ngs cla med Denom nato numbe of upst eam equ pment ebated * S ngle fam ly pa t c pat on ate fo PLA	Pe ED "Ene gy sav ngs" = l fecycle NET sav ngs.	
68	SCG	A03	RSF4	P1	Pe cent	P1 Penet at on of ene gy eff c ency p og ams n the el g ble ma ket Pe cent of Pa t c pat on	Met c	RSF-P1Pe cent of pa t c pat on elat ve to el g ble populat on	Pe cent of pa t c pat on elat ve to el g ble populat on	Res dent al (RSF)	2016	103 126	3,664,679	2.8%	3.4%	16.5%	8.4%	8.4%	8.4%	19.8%	20.0%	P1 Methodology Nume ato Numbe of downst eam pa t c pants) Denom nato total numbe of se v ce accounts n the secto	Def n t on El g ble populat on efe s to Total numbe of se v ce accounts n secto /segment, exclud ng CARE. Pa t c pat on s def ned as the f st nstance of pa t c pat on, should a custome pa t c pate mo e than once o pa t c pate n mult ple p og ams n the calenda yea . PAs also need to have enough nfo mat on about a custome to dete m ne f the custome s n the el g ble populat on and se v ce te to y.	
69	SCG	A03	RSF4	P3	Pe cent	P3 Penet at on of ene gy eff c ency p og ams n the el g ble ma ket - DAC	Met c	RSF-P3 - Pe cent of pa t c pat on n d sadvantaged commun t es	Pe cent of pa t c pat on n d sadvantaged commun t es	Res dent al (RSF)	2016	42 475	921,758	4.6%	4.4%	52.7%	5.3%	5.3%	5.5%	9.2%	11.5%	Nume ato Numbe of pa t c pants n d sadvantaged commun t es.Denom nato Total numbe of custome s n d sadvantaged commun t es.	D.18-05-041 DAC = B ll accounts n census t acts co espond ng to census t acts n the top qua t le of Ca Env o5c een 3.0 sco es.	
70	SCG	A03	RSF4	P4	Pe cent	P4 Penet at on of ene gy eff c ency p og ams n the HTR ma ket	Met c	RSF-P4 - Pe cent of pa t c pat on by custome s def ned as "ha d-to- each"	Pe cent of pa t c pat on by custome s def ned as "ha d-to- each"	Res dent al (RSF)	2016	48 224	1,228,475	3.9%	3.6%	39.8%	4.5%	4.5%	4.7%	7.9%	9.8%	P4 Methodology Nume ato numbe of pa t c pants n HTR geog aph c a eaDenom nato Total numbe of se v ce accounts n HTR geog aph c a ea	D p. 43 - Resolut on G-3497, mod f ed to nclude d sadvantaged commun t es (as des gnated by CalEPA) n the geog aph c c te a fo ha d to each custome s. w th mod f cat on. Geog aph ca ly, SoCalGas' ha d-to- each a eas a e d sadvantaged commun t es othe than the G eate Los Angeles A ea (Los Angeles, O ange, San Be na d no, R ve s de, and Ventu a count es)	
73	SCG	A03	RSF5	LC	PAC Level zed Cost ($/the m)	Cost pe un t saved	Met c	RSF-LC - Level zed cost of ene gy eff c ency pe kWh, the m and kW (use both TRC and PAC)	PAC Level zed Cost ($/the m)	Res dent al (RSF)	2016	12,290 924	16,610,078	0.74	0.94	0 65	0.74	0 74	0.74	0.74	0.74	Pe CEDARS	None	
76	SCG	A03	RSF5	LC	TRC Level zed Cost ($/the m)	Cost pe un t saved	Met c	RSF-LC - Level zed cost of ene gy eff c ency pe kWh, the m and kW (use both TRC and PAC)	TRC Level zed Cost $/the m)	Res dent al (RSF)	2016	28,281 745	16,610,078	1.70	1.52	0 77	1.7	1.7	1 7	1.7	1 7	Pe CEDARS	None	
77	SCG	A03	RSF6	E 1	Kbtu/Sqft	Ene gy ntens ty pe SF household	Ind cato	RSF-E 1(Ind cato) - Ave age ene gy use ntens ty of s ngle fam ly homes (ave age usage pe household – not adjusted)	Ave age f st yea annual kWh g oss pe household	Res dent al (RSF)	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	Not Ava lable	Not Ava lable	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	Nume ato Total ene gy used n secto Denom nato numbe of se v ce accounts	Def n t on Household efe s to a se v ce account	
82	SCG	A03	RMF1	S1-IU	F st yea annual The m g oss	S1 Ene gy Sav ngs	Met c	RMF-S1-F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net) fo mu t fam ly custome s (n-un t, common a ea, and maste mete ed accounts)	F st yea annual The m g oss - In Un t	Res dent al Secto – Mult - fam ly (RMF)	2016	N/A	N/A	140,697	178 554	756,244	142,808	142,808	147 732	485,406	351 744	Sav ngs calculated us ng CET.	A mu t -fam ly un t. Des gnated by a un que b ll ng account unde ate GR and locat on code (LC_CD) = B, C, D (>= 2 un ts)	

Spreadsh eet Index	PA	AttA Page	AttA Order	Method Code	Units of Measurement	Metric Type	Metr c/ Ind cator	Business Plan Att A Descript on	Metric	Sector	Baseline Year	Baseline Numerator	Baseline Denominator	Actual 2016	Actual 2017	Actual 2018	Short Term Target 2015	Short Term Target 2019	Short Term Target 2020	M d Term Target (2021-2023) Cumulative	Long Term Target (2024-2025) Cumulative	Methodology	Key Defin tions	Proxy Explanat on
83	SCG	A03	RMF1	S3-IU	F st yea annual The m net	S1 Ene gy Sav ngs	Met c	RMF-S3-F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net) fo mu t fam ly custome s (n-un t, common a ea, and maste mete ed accounts)	F st yea annual The m net - In Un t	Res dent al Secto – Mult- fam ly (RMF)	2016	N/A	N/A	94,726	111 452	524,577	96,147	96,147	99 463	326,806	236 816	Sav ngs calculated us ng CET.	A mu t -fam ly un t. Des gnated by a un que b ll ng account unde ate GR and locat on code (LC_CD) = B, C, D (>= 2 un ts)	
88	SCG	A03	RMF1	S3-IU	L fecycle ex-ante The m g oss	S1 Ene gy Sav ngs	Met c	RMF-S3-F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net) fo mu t fam ly custome s (n-un t, common a ea, and maste mete ed accounts)	L fecycle ex-ante The m g oss - In Un t	Res dent al Secto – Mu t- fam ly (RMF)	2016	N/A	N/A	1 682,187	2,293 520	7 457,870	1,707,420	1,707,420	1,766 296	5 803,545	4,205 468	Sav ngs calculated us ng CET.	A mu t -fam ly un t. Des gnated by a un que b ll ng account unde ate GR and locat on code (LC_CD) = B, C, D (>= 2 un ts)	
89	SCG	A03	RMF1	S3-IU	L fecycle ex-ante The m net	S1 Ene gy Sav ngs	Met c	RMF-S3-F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net) fo mu t fam ly custome s (n-un t, common a ea, and maste mete ed accounts)	L fecycle ex-ante The m net - In Un t	Res dent al Secto – Mu t- fam ly (RMF)	2016	N/A	N/A	1 574,918	1,720 311	5 090,666	1,598,542	1,598,542	1,653 664	5 433,467	3,937 295	Sav ngs calculated us ng CET.	A mu t -fam ly un t. Des gnated by a un que b ll ng account unde ate GR and locat on code (LC_CD) = B, C, D (>= 2 un ts)	
94	SCG	A03	RMF1	S3-MM	F st yea annual The m g oss	S1 Ene gy Sav ngs	Met c	RMF-S3-F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net) fo mu t fam ly custome s (n-un t, common a ea, and maste mete ed accounts)	F st yea annual The m g oss - Maste Mete ed	Res dent al Secto – Mu t- fam ly (RMF)	2016	N/A	N/A	1 190,539	565 081	611,257	1,208,397	1,208,397	1,250 066	4 107,361	2,976 348	Sav ngs calculated us ng CET.	AL 3826. Natu al gas p ocu ement fo MF accomodat ons supply Basel ne uses th ough one mete . Such as se v ce w ll be b lled unde ates des gnated fo GM-E, GM-BE o GM-BEC, as app op ate.	
95	SCG	A03	RMF1	S3-MM	F st yea annual The m net	S1 Ene gy Sav ngs	Met c	RMF-S3-F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net) fo mu t fam ly custome s (n-un t, common a ea, and maste mete ed accounts)	F st yea annual The m net - Maste Mete ed	Res dent al Secto – Mu t- fam ly (RMF)	2016	N/A	N/A	834,669	361 725	432,951	847,189	847,189	876 403	2 879,609	2,086 673	Sav ngs calculated us ng CET.	AL 3826. Natu al gas p ocu ement fo MF accomodat ons supply Basel ne uses th ough one mete . Such as se v ce w ll be b lled unde ates des gnated fo GM-E, GM-BE o GM-BEC, as app op ate.	
100	SCG	A03	RMF1	S3-MM	L fecycle ex-ante The m g oss	S1 Ene gy Sav ngs	Met c	RMF-S3-F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net) fo mu t fam ly custome s (n-un t, common a ea, and maste mete ed accounts)	L fecycle ex-ante The m g oss - Maste Mete ed	Res dent al Secto – Mu t- fam ly (RMF)	2016	N/A	N/A	10 899,317	3,975 876	5 377,179	11,062,807	11,062,807	11,444 283	37 602,645	27,248 293	Sav ngs calculated us ng CET.	AL 3826. Natu al gas p ocu ement fo MF accomodat ons supply Basel ne uses th ough one mete . Such as se v ce w ll be b lled unde ates des gnated fo GM-E, GM-BE o GM-BEC, as app op ate.	
101	SCG	A03	RMF1	S3-MM	L fecycle ex-ante The m net	S1 Ene gy Sav ngs	Met c	RMF-S3-F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net) fo mu t fam ly custome s (n-un t, common a ea, and maste mete ed accounts)	L fecycle ex-ante The m net - Maste Mete ed	Res dent al Secto – Mu t- fam ly (RMF)	2016	N/A	N/A	8 275,483	2,559 625	3 622,958	8,399,615	8,399,615	8,689 257	28 550,417	20,688 708	Sav ngs calculated us ng CET.	AL 3826. Natu al gas p ocu ement fo MF accomodat ons supply Basel ne uses th ough one mete . Such as se v ce w ll be b lled unde ates des gnated fo GM-E, GM-BE o GM-BEC, as app op ate.	
106	SCG	A03	RMF1	SI-CA	F st yea annual The m g oss	S1 Ene gy Sav ngs	Met c	RMF-S1-F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net) fo mu t fam ly custome s (n-un t, common a ea, and maste mete ed accounts)	F st yea annual The m g oss - Common A ea	Res dent al Secto – Mu t- fam ly (RMF)	2016	N/A	N/A	83,699	11 691	62,183	84,955	84,955	87 884	288,762	209 248	Sav ngs calculated us ng CET.	AL 3826. Natu al gas suppl ed th ough a s ngle mete to common fac l t es only, w ll be b lled unde ates GM-C, GM-BC o GM-BCC, as app op ate.	
107	SCG	A03	RMF1	SI-CA	F st yea annual The m net	S1 Ene gy Sav ngs	Met c	RMF-S1-F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net) fo mu t fam ly custome s (n-un t, common a ea, and maste mete ed accounts)	F st yea annual The m net - Common A ea	Res dent al Secto – Mu t- fam ly (RMF)	2016	N/A	N/A	66,296	7 289	45,326	67,291	67,291	69 611	228,722	165 741	Sav ngs calculated us ng CET.	AL 3826. Natu al gas suppl ed th ough a s ngle mete to common fac l t es only, w ll be b lled unde ates GM-C, GM-BC o GM-BCC, as app op ate.	
112	SCG	A03	RMF1	SI-CA	L fecycle ex-ante The m g oss	S1 Ene gy Sav ngs	Met c	RMF-S1-F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net) fo mu t fam ly custome s (n-un t, common a ea, and maste mete ed accounts)	L fecycle ex-ante The m g oss - Common A ea	Res dent al Secto – Mu t- fam ly (RMF)	2016	N/A	N/A	977,601	76 523	619,092	992,265	992,265	1,026 481	3 372,723	2,444 002	Sav ngs calculated us ng CET.	AL 3826. Natu al gas suppl ed th ough a s ngle mete to common fac l t es only, w ll be b lled unde ates GM-C, GM-BC o GM-BCC, as app op ate.	
113	SCG	A03	RMF1	SI-CA	L fecycle ex-ante The m net	S1 Ene gy Sav ngs	Met c	RMF-S1-F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net) fo mu t fam ly custome s (n-un t, common a ea, and maste mete ed accounts)	L fecycle ex-ante The m net - Common A ea	Res dent al Secto – Mu t- fam ly (RMF)	2016	N/A	N/A	819,327	47 844	447,057	831,617	831,617	860 293	2 826,677	2,048 317	Sav ngs calculated us ng CET.	AL 3826. Natu al gas suppl ed th ough a s ngle mete to common fac l t es only, w ll be b lled unde ates GM-C, GM-BC o GM-BCC, as app op ate.	
114	SCG	A03	RMF2	G	MT CO2eq	GHG	Met c	RMF-G G eenhouse gasses (MT CO2eq) Net kWh sav ngs, epo ted on an annual bas s	CO2-equ valent of net annual kWh sav ngs	Res dent al Secto – Mu t- fam ly (RMF)	2016	N/A	N/A	8,424	5 282	8,527	8,550	8,550	8 845	9,688	10 530	Pe CEDARS	Def n t on Mu t -fam ly efe s to any bui d ng o p ope ty w th at least two es dent al hous ng un ts.	
117	SCG	A04	RMF3	D3a	L fecycle NET The ms	D3 Depth of nte vent ons pe bu ld ng	Met c	RMF-D3 - Ene gy sav ngs (kWh, kw, the ms) pe p oject (bu ld ng)	L fecycle ex-ante The m net pe p oject (bu ld ng)	Res dent al Secto – Mu t- fam ly (RMF)	2016	9,094 810	2,041	4,456	1 645	2,242	4,523	4,523	4 679	5,124	5 570	D3 Methodology Nume ato Total Sav ngs cla med fo MF bu ld ng at of tsDenom nato Numbe of bu ld ngs that have been et of tted, pe appl cat on (assumed 7.4 un ts pe bu ld ng (CALMAC http://www.calmac.o g/publ cat ons/MFEER_P ocess_Evaluat on_FINAL_130415.pdf))	D3 Key Def n t ons P oject appl cat ons a e made at the p ope ty level (p em se D and se v ce account numbe) not the bu ld ng level bu ld ng nfo mat on w ll be used as s ava lable on p oject appl cat ons"Ene gy sav ngs" = L fecycle NET sav ngs	
120	SCG	A04	RMF3	D4	L fecycle NET The ms	D4 Depth of nte vent ons pe p ope ty	Met c	RMF-D4 - Ave age sav ngs pe pa t c pant Sav ngs pe p oject (p ope ty)	L fecycle ex-ante The m net pe p oject (p ope ty)	Res dent al Secto – Mu t- fam ly (RMF)	2016	1,574 918	14,251	111	155	113	112	112	116	127	138	D4 Methodology Nume ato - Total downst eam sav ngs Denom nato - numbe of pa t c pat ng p ope t es (.e., p em se ID s se v ce account)	D4 Def n t on "P oject (p ope ty)" s def ned by a un que p oject ID. "Ene gy sav ngs" = L fecycle NET sav ngs	
123	SCG	A04	RMF3	D5	L fecycle NET The ms	D5 Depth of nte vent ons Pe squa e foot	Met c	RMF-D5 Ene gy sav ngs (kWh, kw, the ms) pe squa e foot	L fecycle ex-ante The m net pe squa e foot	Res dent al Secto – Mu t- fam ly (RMF)	2016	10,669 728	36,293,380	0.29	0.15	0 15	0.30	0 30	0.31	0.34	0.37	D5 Methodology [Nume ato] Total downst eam sav ngs [Denom nato] Total MF squa e foot pe Assesso data	Pe ED "Ene gy sav ngs" = l fecycle NET sav ngs.	
124	SCG	A04	RMF4	P1-P	Pe cent	P1 Penet at on of ene gy eff c ency p og ams n the el g ble ma ket Pe cent of Pa t c pat on	Met c	RMF-P1P Pe cent of pa t c pat on elat ve to el g ble popula on (by un t, and p ope ty)	Pe cent of pa t c pat on elat ve to el g ble popula on by p ope ty	Res dent al Secto – Mu t- fam ly (RMF)	2016	2 041	232,920	0.9%	0.7%	0.8%	0.9%	0.9%	0.9%	1.0%	1.1%	P1 Methodology Nume ato Numbe of downst eam pa t c pat ng p ope t es (un que p oject ID) Denom nato total numbe of p ope t es (un que se v ce account) n the secto .	Pa t c pat on s def ned as the f st nstance of pa t c pat on, should a custome pa t c pate mo e than once o pa t c pate n mu t ple p og ams n the calenda yea . PAs also need to have enough nfo mat on about a custome to dete m ne f the custome s n the el g ble popula on and se v ce te to y.	
125	SCG	A04	RMF4	P1-U	Pe cent	P1 Penet at on of ene gy eff c ency p og ams n the el g ble ma ket Pe cent of Pa t c pat on	Met c	RMF-P1U Pe cent of pa t c pat on elat ve to el g ble popula on (by un t, and p ope ty)	Pe cent of pa t c pat on elat ve to el g ble popula on by un t	Res dent al Secto – Mu t- fam ly (RMF)	2016	14 251	1,719,803	0.8%	0.6%	2.6%	0.8%	0.8%	0.9%	1.0%	1.0%	P1 Methodology Nume ato Numbe of downst eam pa t c pat ng MF un ts (un que se v ce account = un t) Denom nato total numbe of un ts (se v ce accounts) n the secto .	Pa t c pat on s def ned as the f st nstance of pa t c pat on, should a custome pa t c pate mo e than once o pa t c pate n mu t ple p og ams n the calenda yea . PAs also need to have enough nfo mat on about a custome to dete m ne f the custome s n the el g ble popula on and se v ce te to y.	
126	SCG	A04	RMF4	P2	Pe cent	P2 Penet at on of ene gy eff c ency p og ams n te ms of square feet of el gible popula on	Met c	RMF-P2 - Pe cent of squa e feet of el g ble popula on pa t c pat ng (by p ope ty)	Pe cent of squa e feet of el g ble popula on pa t c pat ng (by p ope ty)	Res dent al Secto – Mu t- fam ly (RMF)	2016	13,324 292	1 608,015,805	0.8%	0.6%	2.6%	0.8%	0.8%	0.9%	1.0%	1.0%	P2 Methodology Nume ato # se v ce accounts pa t c pat ng X ave age sqft/se v ce account)Denom nato Squa e footage of all el g ble accounts (pe Assesso)		
127	SCG	A04	RMF4	P3 DAC	Pe cent	P3 Penet at on of ene gy eff c ency p og ams n the el g ble ma ket - DAC	Met c	RMF-P3 - Pe cent of pa t c pat on n d sadvantaged commun t es	Pe cent of pa t c pat on n d sadvantaged commun t es	Res dent al Secto – Mu t- fam ly (RMF)	2016	3 044	609,633	0.5%	0.4%	1.0%	0.6%	0.6%	0.6%	1.0%	1.2%	Nume ato Numbe of pa t c pants (se v ce accounts) n d sadvantaged commun t es.Denom nato Total numbe of custome s (se v ce accounts) n d sadvantaged commun t es.	D.16-05-041 DAC = B ll accounts n census t act co espond ng to the top qua t le of CalEnv oSc een 3.0 sco es.	
128	SCG	A04	RMF4	P4 HTR	Pe cent	P4 Penet at on of ene gy eff c ency p og ams n the HTR ma ket	Met c	RMF-P4 Pe cent of pa t c pat on by custome s def ned as "ha d-to- each"	Pe cent of pa t c pat on by custome s def ned as "ha d-to- each"	Res dent al Secto – Mu t- fam ly (RMF)	2016	3 383	687,806	0.5%	0.4%	1.8%	0.6%	0.6%	0.6%	1.0%	1.2%	P4 Methodology Nume ato numbe of pa t c pants n HTR geog aph c a eaDenom nato Total numbe of se v ce accounts n HTR geog aph c a ea	D p. 43 - Resolut on G-3497, mod f ed to nclude d sadvantaged commun t es (as des gnated by CalEPA) n the geog aph c c te a fo ha d to each custome s. w th mod f cat on. Geog aph cally, SoCalGas' ha d-to- each a ea s a e d sadvantaged commun t es othe than the G eate Los Angeles A ea (Los Angeles, O ange, San Be na d no, R ve s de, and Ventu a coun es)	
129	SCG	A04	RMF5	B1	Pe cent	B1 MF Benchma k ng Penet at on	Met c	RMF-B1 - Pe cent of benchma ked mult -fam ly p ope t es elat ve to the el g ble popula on	Pe cent of benchma ked mu t -fam ly p ope t es elat ve to the el g ble popula on	Res dent al Secto – Mu t- fam ly (RMF)	2016	214	232,920	0.1%	0.2%	0.4%	1%	10%	10%	10%	10%	Total benchma ked un ts n RMF secto Total numbe of se v ce account n RMF secto Benchma ked v a Po tfol o Manage 2019 MF w th 17 o un ts MUST Benchma k		
130	SCG	A04	RMF5	B6	Pe cent	B6 Benchma k ng of HTR P ope t es	Met c	B6(RMF) - Pe cent of benchma k ng by p ope t es def ned as "ha d-to- each"	Pe cent of benchma k ng by p ope t es def ned as "ha d-to- each"	Res dent al Secto – Mu t- fam ly (RMF)	2016	76	110,532	0.0%	0.0%	0.0%	1%	10%	10%	10%	10%	Benchma k ng pe Po tfol o Manage . Se v ce accounts n HTR ma ket		
133	SCG	A04	RMF6	LC	PAC Level zed Cost ($/the m)	Cost pe un t saved	Met c	RMF-LC - Level zed cost of ene gy eff c ency pe kWh, the m and kW (use both TRC and PAC)	PAC Level zed Cost ($/the m)	Res dent al Secto – Mu t- fam ly (RMF)	2016	7,504 969	10,193,093	0.74	0.90	0 47	0.74	0.74	0.74	0 74	0.74	Pe CEDARS		None
136	SCG	A04	RMF6	LC	TRC Level zed Cost ($/the m)	Cost pe un t saved	Met c	RMF-LC - Level zed cost of ene gy eff c ency pe kWh, the m and kW (use both TRC and PAC)	TRC Level zed Cost ($/the m)	Res dent al Secto – Mu t- fam ly (RMF)	2016	9,996 130	10,193,093	0.98	0.99	0 47	0.98	0.98	0.98	0 98	0.98	Pe CEDARS		None
137	SCG	A04	RMF7	E 2	KBtu/un t	Ene gy Intens ty pe MF un t	Ind cato	RMF-E12(Ind cato) - and Ave age ene gy use ntens ty of mu t fam ly un ts. ncludi ng n-un t accounts)	Ave age KBtu pe pe un t	Res dent al Secto – Mu t- fam ly (RMF)	N/A - Ind cato	N/A - Ind cato	Not Ava lable	Not Ava lable	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	Nume ato Total usage of Res MF secto Denom nato total un ts (se v ce accounts) n Res MF secto		
138	SCG	A04	RMF7	E 3	KBtu/sqft	Ene gy Intens ty pe MF un t squa e foot	Ind cato	RMF-E13(Ind cato) Ave age ene gy use ntens ty of mu t fam ly bu ld ngs (ave age usage pe squa e foot – not ad usted	Ave age KBtu pe squa e foot	Res dent al Secto – Mu t- fam ly (RMF)	N/A - Ind cato	N/A - Ind cato	Not Ava lable	Not Ava lable	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	Nume ato Total usage of Res MF secto Denom nato ave age numbe of un ts n MF bu ld ng t mes ave age squa e footage of MF un ts		
143	SCG	A05	C1	S1	F st yea annual The m g oss	S1 Ene gy Sav ngs	Met c	C-S1 - F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net)	F st yea annual The m g oss	Comme c al Secto (C)	2016	N/A	N/A	3 552,481	3,342 185	5 503,702	3,552,481	3,641,293	3,730 105	11 723,187	8,170 706	pe CEDARS		Excludes publ c accounts.
144	SCG	A05	C1	S1	F st yea annual The m net	S1 Ene gy Sav ngs	Met c	C-S1 - F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net)	F st yea annual The m net	Comme c al Secto (C)	2016	N/A	N/A	2 221,709	2,132 366	3 775,064	2,221,709	2,277,252	2,332 795	7 331,641	5,109 931	pe CEDARS		None
149	SCG	A05	C1	S1	L fecycle ex-ante The m g oss	S1 Ene gy Sav ngs	Met c	C-S1 - F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net)	L fecycle ex-ante The m g oss	Comme c al Secto (C)	2016	N/A	N/A	42 882,610	42,998 315	53 164,127	42,882,610	43,954,675	45,026 740	141 512,612	98,630 002	pe CEDARS		None
150	SCG	A05	C1	S1	L fecycle ex-ante The m net	S1 Ene gy Sav ngs	Met c	C-S1 - F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net)	L fecycle ex-ante The m net	Comme c al Secto (C)	2016	N/A	N/A	26 867,413	27,300 788	35 216,284	26,867,413	27,539,098	28,210 784	88 662,463	61,795 050	pe CEDARS		None

Spreadsheet Index	PA	AttA Page	AttA Order	Method Code	Units of Measurement	Metric Type	Metric/ Indicator	Business Plan Att A Description	Metric	Sector	Baseline Year	Baseline Numerator	Baseline Denominator	Actual 2016	Actual 2017	Actual 2018	Short Term Target 2018	Short Term Target 2019	Short Term Target 2020	Mid Term Target (2021-2023) Cumulative	Long Term Target (2024-2025) Cumulative	Methodology	Key Definitions	Proxy Explanation
155	SCG	A05	C1	S2	Pe cent f st yea annual The m g oss	S2 Pe cent Ove all Secto al Sav ngs	Met c	C-S2 - F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net) as a pe centage of ove all secto al usage	Pe cent f st yea annual The m g oss	Comme c al Secto (C)	2016	3,552 481	746,694,714	0.48%	0.44%	0.70%	0.48%	0.49%	0.50%	0.52%	0.55%	S2 Methodology Nume ato = Met c C1 Denom nato = Total secto al usage, f om PA b l ng database	None	
156	SCG	A05	C1	S2	Pe cent f st yea annual The m net	S2 Pe cent Ove all Secto al Sav ngs	Met c	C-S2 - F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net) as a pe centage of ove all secto al usage	Pe cent f st yea annual The m net	Comme c al Secto (C)	2016	2,221 709	746,694,714	0.30%	0.28%	0.48%	0.30%	0.30%	0.31%	0.33%	0.34%	S2 Methodology Nume ato = Met c C1 Denom nato = Total secto al usage, f om PA b l ng database	None	
161	SCG	A05	C1	S2	Pe cent l fecycle ex-ante The m g oss	S2 Pe cent Ove all Secto al Sav ngs	Met c	C-S2 - F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net) as a pe centage of ove all secto al usage	Pe cent l fecycle ex-ante The m g oss	Comme c al Secto (C)	2016	42,882 610	746,694,714	5.74%	5.69%	6.80%	5.74%	5.89%	6.03%	6.32%	6.60%	S2 Methodology Nume ato = Met c C1 Denom nato = Total secto al usage, f om PA b l ng database	None	
162	SCG	A05	C1	S2	Pe cent l fecycle ex-ante The m net	S2 Pe cent Ove all Secto al Sav ngs	Met c	C-S2 - F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net) as a pe centage of ove all secto al usage	Pe cent l fecycle ex-ante The m net	Comme c al Secto (C)	2016	26,867 413	746,694,714	3.60%	3.61%	4.51%	3.60%	3.69%	3.78%	3.96%	4.14%	S2 Methodology Nume ato = Met c C1 Denom nato = Total secto al usage, f om PA b l ng database	None	
163	SCG	A05	C2	G	MT CO2eq	GHG	Met c	C-GG eenhouse gasses (MT CO2eq) Net kWh sav ngs, epo ted on an annual bas s	CO2-equ valent of net annual the m sav ngs	Comme c al Secto (C)	2016	N/A	N/A	20,243	20,128	28,765	20,243	20,749	21 255	22,267	23 279	Pe CEDARS		
166	SCG	A05	C3	D2	Pe cent l fecycle g oss The ms	D2 Depth of nte vent ons by p oject	Met c	Ene gy sav ngs (g oss kWh, the ms) as a f act on of total p oject consumpt on.	Pe cent l fecycle g oss The ms	Comme c al Secto (C)	2016	3,552 481	35,477,951	10.01%	7 76%	9.19%	10.0%	10.3%	10.5%	11.0%	11.5%	D2 Methodology (ED Ok)**Nume ato Ene gy sav ngs cla med fo p o ect**Denom nato Ene gy Usage Basel ne on appl cat on, aga nst wh ch p o ect sav ngs s calculated.		Fo compl ance f l ng, denom nato s equal to pa t c pant ene gy consumpt on.
167	SCG	A05	C4	P1L	Pe cent	P1 Penet at on of ene gy eff c ency p og ams n the el g ble ma ket Pe cent of Pa t c pat on	Met c	C-P1M Pe cent of pa t c pat on elat ve to el g blepopulat on fo small, med um, and la ge custome s	Pe cent of pa t c pat on elat ve to el g ble populat on fo la ge custome s	Comme c al Secto (C)	2016	79	1,344	5 9%	6.6%	6.3%	5.9%	6.0%	6.2%	6.5%	6.8%	P1 Methodology Nume ato Numbe of downst eam pa t c pat ng (se v ce accounts) Denom nato total numbe (se v ce accounts) n the secto .	Pa t c pat on s def ned as the f st nstance of pa t c pat on, should a custome pa t c pate mo e than once o pa t c pate n mu t ple p og ams n the calenda yea . PAs also need to have enough nfo mat on about a custome to dete m ne f the custome s n the el g ble populat on and se v ce te to y.	
168	SCG	A05	C4	P1M	Pe cent	P1 Penet at on of ene gy eff c ency p og ams n the el g ble ma ket Pe cent of Pa t c pat on	Met c	C-P1M Pe cent of pa t c pat on elat ve to el g blepopulat on fo small, med um, and la ge custome s	Pe cent of pa t c pat on elat ve to el g ble populat on fo med um custome s	Comme c al Secto (C)	2016	590	14,320	4.1%	4.1%	6.9%	5.0%	5.0%	5.0%	6.0%	8.0%	P1 Methodology Nume ato Numbe of downst eam pa t c pat ng (se v ce accounts) Denom nato total numbe (se v ce accounts) n the secto .	Pa t c pat on s def ned as the f st nstance of pa t c pat on, should a custome pa t c pate mo e than once o pa t c pate n mu t ple p og ams n the calenda yea . PAs also need to have enough nfo mat on about a custome to dete m ne f the custome s n the el g ble populat on and se v ce te to y.	
169	SCG	A05	C4	P1S	Pe cent	P1 Penet at on of ene gy eff c ency p og ams n the el g ble ma ket Pe cent of Pa t c pat on	Met c	C-P1LPe cent of pa t c pat on elat ve to el g blepopulat on fo small, med um, and la ge custome s	Pe cent of pa t c pat on elat ve to el g ble populat on fo small custome s	Comme c al Secto (C)	2016	1 161	167,582	0.7%	0.9%	2.3%	0.7%	0.7%	0.7%	0.8%	0.8%	P1 Methodology Nume ato Numbe of downst eam pa t c pat ng (se v ce accounts) Denom nato total numbe (se v ce accounts) n the secto .	Pa t c pat on s def ned as the f st nstance of pa t c pat on, should a custome pa t c pate mo e than once o pa t c pate n mu t ple p og ams n the calenda yea . PAs also need to have enough nfo mat on about a custome to dete m ne f the custome s n the el g ble populat on and se v ce te to y.	
170	SCG	A05	C4	P2	Pe cent	P2 Penet at on of ene gy eff c ency p og ams n te ms of **square feet of el gible populat on**	Met c	C-P2 - Pe cent of squa e feet of el g ble populat on	Pe cent of squa e feet of el g ble populat on	Comme c al Secto (C)	2016	10,915 011	1 082,940,175	1.0%	1.1%	1.9%	1.0%	1.0%	1.1%	1.1%	1.2%	P2 Methodology F om Comme c al Satu at on Study (CalmacID CPU0077.01). Nume ato SoCalGas ass gns the ndoo squa e feet fo each pa t c pat ng b l account by the CSS ave age squa e feet us ng the 2-d g t NAICS Denom nato Total comme c al accounts by 2-d g t NAICS mu t pl ed by the ave age ndoo squa e feet by the espect ve subtotals by 2-d g t NAICS.	In summa y, the squa e feet of SoCalGas' comme c al space s we ghted by the numbe of comme c al custome s we se ve. As a check fo us ng th s method, SoCalGas' est mated total comme c al squa e feet s about 22% of the state f om the 2006 CEUS esu ts.	S nce the CSS study ncludes only the elect c ut l t es, SoCalGas uses SCE's esu t as a p oxy.
171	SCG	A05	C4	P4	Pe cent	P4 Penet at on of ene gy eff c ency p og ams n the HTR ma ket	Met c	C-P4- Pe cent of pa t c pat on by custome s def ned as "ha d-to- each"	Pe cent of pa t c pat on by custome s def ned as "ha d-to- each"	Comme c al Secto (C)	2016	63	82,999	0.1%	0.1%	1.9%	0.08%	0.08%	0.08%	0.08%	0.09%	P4 Methodology Nume ato numbe of pa t c pants n HTR geog aph c a eaDenom nato Total numbe of se v ce accounts n HTR geog aph c a ea.	D p. 43 - Resolut on G-3497, mod f ed to nclude d sadvantaged commun t es (as des gnated by CalEPA) n the geog aph c c te a fo ha d to each custome s. w th mod f cat on. Geog aph ca ly, SoCalGas' ha d-to- each a eas a e d sadvantaged commun t es othe than the G eate Los Angeles A ea (Los Angeles, O ange, San Be na d no, R ve s de, and Ventu a count es)	
172	SCG	A05	C5	B2	Pe cent	Squa e Footage of Comme c al **Benchmarking** Penet at on	Met c	C-B2 - Pe cent of benchma ked squa e feet of el g ble populat on	Pe cent of benchma ked squa e feet of el g ble populat on	Comme c al Secto (C)	2016	3,331 699	1 082,940,175	0.3%	0.3%	0.4%	1.12%	2.25%	2.24%	2.24%	2.23%	P2 Methodology F om Comme c al Satu at on Study (CalmacID CPU0077.01). Nume ato SoCalGas ass gns the ndoo squa e feet fo each pa t c pat ng b l account by the CSS ave age squa e feet us ng the 2-d g t NAICS Denom nato Total comme c al accounts by 2-d g t NAICS mu t pl ed by the ave age ndoo squa e feet by the espect ve subtotals by 2-d g t NAICS.	In summa y, the squa e feet of SoCalGas' comme c al space s we ghted by the numbe of comme c al custome s we se ve. As a check fo us ng th s method, SoCalGas' est mated total comme c al squa e feet s about 22% of the state f om the 2006 CEUS esu ts.	S nce the CSS study ncludes only the elect c ut l t es, SoCalGas uses SCE's esult as a p oxy.
173	SCG	A05	C5	B5L	Pe cent	**Benchmarking** Penet at on fo Comme c al Secto	Met c	B5(C)L Pe cent of benchma ked custome s elat ve to el g ble populat on fo la ge custome s	Pe cent of benchma ked custome s elat ve to el g ble populat on fo **large** custome s	Comme c al Secto (C)	2016	24	1,344	1.8%	3.0%	2.4%	100%	100%	100%	100%	100%	Methodology Nume ato Numbe of la ge comme c al custome s that have been benchma ked on Po tfol o Manage Denom nato Total numbe of comme c al custome accounts.	Fo benchma k ng met cs, s ze of custome should be def ned n l ne w th AB 802 egulat ons (by squa e footage, not usage). If the PA te to y ove laps a c ty w th benchma k ng o d nance, then use the s ze th esholds fo epo t ng.	
174	SCG	A05	C5	B5M	Pe cent	**Benchmarking** Penet at on fo Comme c al Secto	Met c	B5(C)M Pe cent of benchma ked custome s elat ve to el g ble populat on fo med um custome s	Pe cent of benchma ked custome s elat ve to el g ble populat on fo **medium** custome s	Comme c al Secto (C)	2016	116	14,320	0.81%	1.30%	1.49%	2%	20%	20%	20%	20%	Methodology Nume ato Numbe of Med um comme c al custome s that have been benchma ked on Po tfol o Manage Denom nato Total numbe of comme c al custome accounts.	Fo benchma k ng met cs, s ze of custome should be def ned n l ne w th AB 802 egulat ons (by squa e footage, not usage). If the PA te to y ove laps a c ty w th benchma k ng o d nance, then use the s ze th esholds fo epo t ng.	
175	SCG	A05	C5	B5S	Pe cent	**Benchmarking** Penet at on fo Comme c al Secto	Met c	B5(C)SPe cent of benchma ked custome s elat ve to el g ble populat on fo sma l custome s	Pe cent of benchma ked custome s elat ve to el g ble populat on fo **small** custome s	Comme c al Secto (C)	2016	336	167,582	0.20%	0.21%	0.26%	0.21%	0.20%	0.20%	0.19%	0.18%	Methodology Nume ato Numbe of Small comme c al custome s that have been benchma ked on Po tfol o Manage Denom nato Total numbe of comme c al custome accounts.	Fo benchma k ng met cs, s ze of custome should be def ned n l ne w th AB 802 egulat ons (by squa e footage, not usage). If the PA te to y ove laps a c ty w th benchma k ng o d nance, then use the s ze th esholds fo epo t ng.	
176	SCG	A05	C5	B6	Pe cent	B6 **Benchmarking** of HTR P ope t es	Met c	B6(C) - Pe cent of benchma k ng by custome s def ned as "ha d-to- each"	Pe cent of benchma k ng by custome s def ned as "ha d-to- each"	Comme c al Secto (C)	2016	17	167,582	0 0%	0.1%	0.1%	0.10%	0.10%	0.10%	0.10%	0.10%	Benchma k ng pe Po tfol o Manage . Se v ce accounts x p em se IDs n HTR ma ketP oxy, f cha acte st cs othe than s ze and geo locat on a en t known, develop p oxy us ng just s ze and geo locat on.		
179	SCG	A05	C6	LC	PAC Level zed Cost ($/the m)	Cost pe un t saved	Met c	C-LC - Level zed cost of ene gy eff c ency pe kWh, the m and kW (use both TRC and PAC)	PAC Level zed Cost ($/the m)	Comme c al Secto (C)	2016	13,367 249	26,867,413	0.50	0.29	0 42	0.5	0.5	0 5	0.5	0 5	Pe CEDARS	None	
182	SCG	A05	C6	LC	TRC Level zed Cost ($/the m)	Cost pe un t saved	Met c	C-LC - Level zed cost of ene gy eff c ency pe kWh, the m and kW (use both TRC and PAC)	TRC Level zed Cost $/the m)	Comme c al Secto (C)	2016	16,494 696	26,867,413	0.61	0.42	0 57	0.61	0 61	0.61	0.61	0.61	Pe CEDARS	None	
183	SCG	A06	C7	N1	Pe cent	NMEC	Ind cato	C-N1[Ind cato] F act on of total p o ects ut l z ng No mal zed Mete ed Ene gy Consumpt on (NMEC) to est mate sav ngs	Pe cent of total p ojects ut l z ng No mal zed Mete ed Ene gy Consumpt on (NMEC) to est mate sav ngs	Comme c al Secto (C)	2016	N/A - Ind cato	N/A - Ind cato	0	0	0	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	Pe CAEECC meet ng "F act on of total custom p o ects ut l z ng NMEC to est mate sav ngs".Data f om CMPA (Custom Measu e and P oject A ch ve)		
184	SCG	A06	C7	N2	Pe cent	NMEC	Ind cato	C-N2[Ind cato] F act on of total sav ngs (g oss kWh and the m) de ved f om NMEC analys s	Pe cent of total sav ngs (g oss kWh and the m) de ved f om NMEC analys s	Comme c al Secto (C)	2016	N/A - Ind cato	N/A - Ind cato	0	0	0	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	Pe CAEECC Meet ng "F act on of total custom sav ngs de ved f om NMEC analys s".Data f om CMPA.		
185	SCG	A06	C8	CS	Pe cent	Sat sfact on	Ind cato	C-CS[Ind cato] Imp ovement n custome sat sfact on	Pe cent Imp ovement n custome sat sfact on	Comme c al Secto (C)	Not Ava lable	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	Not Ava lable	Not Ava lable	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	Pe CAEECC Meet ng M&E w ll develop and f eld a cons stent su vey nst ument annually.		
186	SCG	A06	C8	TS	Pe cent	Sat sfact on	Ind cato	C-TS[Ind cato] Imp ovement n t ade ally sat sfact on	Pe cent Imp ovement n t ade ally sat sfact on	Comme c al Secto (C)	Not Ava lable	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	Not Ava lable	Not Ava lable	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	Pe CAEECC Meet ng M&E w ll develop and f eld a cons stent su vey nst ument annually.		
187	SCG	A06	C9	F1	Pe cent	Investment n ene gy eff c ency	Ind cato	C-F - [Ind cato] F act on of total nvestments made by atepaye s and p vate cap tal	Pe cent of total nvestments made by atepaye s and p vate cap tal	Comme c al Secto (C)	Not Ava lable	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	Not Ava lable	Not Ava lable	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	C-F Pe CAEECC meet ng and ED Nume ato Total Incent veDenom nato Total P oject cost		
192	SCG	A06	P1	S1	F st yea annual The m g oss	S1 Ene gy Sav ngs	Met c	P-S1 - F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net) ac oss Publ c Secto p og ams	F st yea annual The m g oss	Publ c Secto P)	2016	N/A	N/A	884,283	815 153	721,490	897,547	897,547	901 969	3 050,777	2,387 564	pe CEDARS	SoCalGas manually dent f es Publ c accounts by B ll Account IDs fo the Publ c Secto met cs.	
193	SCG	A06	P1	S1	F st yea annual The m net	S1 Ene gy Sav ngs	Met c	P-S1 - F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net) ac oss Publ c Secto p og ams	F st yea annual The m net	Publ c Secto P)	2016	N/A	N/A	630,567	567 915	530,464	640,026	640,026	643 179	2 175,458	1,702 532	pe CEDARS	SoCalGas manually dent f es Publ c accounts by B ll Account IDs fo the Publ c Secto met cs.	
198	SCG	A06	P1	S1	L fecycle ex-ante The m g oss	S1 Ene gy Sav ngs	Met c	P-S1 - F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net) ac oss Publ c Secto p og ams	L fecycle ex-ante The m g oss	Publ c Secto P)	2016	N/A	N/A	7 687,113	8,570 956	7 535,757	7,802,420	7,802,420	7,840 856	26 520,541	20,755 206	pe CEDARS	SoCalGas manually dent f es Publ c accounts by B ll Account IDs fo the Publ c Secto met cs.	
199	SCG	A06	P1	S1	L fecycle ex-ante The m net	S1 Ene gy Sav ngs	Met c	P-S1 - F st yea annual and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net) ac oss Publ c Secto p og ams	L fecycle ex-ante The m net	Publ c Secto (P)	2016	N/A	N/A	5 425,342	5,899 598	5 723,255	5,506,722	5,506,722	5,533 849	18 717,431	14,648 424	pe CEDARS	SoCalGas manually dent f es Publ c accounts by B ll Account IDs fo the Publ c Secto met cs.	

Spreadsh eet Index	PA	AttA Page	AttA Order	Method Code	Units of Measurement	Metric Type	Metr c/ Ind cator	Business Plan Att A Descript on	Metric	Sector	Basel ne			Actual			Short Term Target			M d Term Target (2021-2023) Cumulative	Long Term Target (2024-2025) Cumulative	Methodology	Key Defin tions	Proxy Explanat on
											Year	Numerator	Denominator	2016	2017	2018	2018	2019	2020					
200	SCG	A06	P2	G	MT CO2eq	GHG	Met c	P-GG eenhouse gasses (MT CO2eq) based on net l fecycle kWh and The ms sav ngs, epo ted on an annual bas s, nco po at ng ave age fuel/technology m x	CO2-equ valent of net annual the m sav ngs	Publ c Secto (P)	2016	N/A	N/A	5,210	4 770	3,825	5,288	5,288	5 314	5,992	7 034	Pe CEDARS		
203	SCG	A06	P3	D3b	Pe cent annual NET The ms	D3 Depth of nte vent ons pe bu ld ng	Ind cato	P-D3 Ind cato] Ave age pe cent ene gy sav ngs (kWh, kw, the ms) pe p oject bu ld ng o fac l ty	Pe cent annual net The ms pe p o ect bu ld ng o fac l ty	Publ c Secto (P)	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	17,730	33 331	30,443	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	Not Ava lable	Not Ava lable	D3 Methodology Nume ato Total sav ngs cla med fo publ c secto bu ld ng et of tsDenom nato Ene gy usage of bu ld ngs that have been et of tted, pe appl cat on.	D3 Key Def n t ons P oject appl cat ons a e made at the p ope ty level (p em se D and se v ce account numbe) not the bu ld ng level. Ene gy Sav ngs efe s to Annual Net sav ngs, n keep ng w th ED d ect on to use Net sav ngs f othe w se not spec f ed (L fecycle Net).	
206	SCG	A06	P3	D5	Annual NET The ms	D5 Depth of nte vent ons Pe squa e foot	Ind cato	P-D5 Ind cato] Ave age annual ene gy sav ngs (kWh, kw, the ms) pe p oject bu ld ng floo plan a ea	Ave age annual net The m sav ngs pe p oject bu ld ng floo plan a ea	Publ c Secto (P)	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	1.88	3.14	2 86	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	Not Ava lable	Not Ava lable	D5 Methodology [Nume ato] Total downst eam sav ngs [Denom nato] Total numbe of se v ce accounts pa t c pat ng. x ave age squa e footage of p ope ty		
209	SCG	A06	P3	W1	Annual NET The ms	Wate	Ind cato	P-W1[Ind cato] Ave age annual ene gy sav ngs (kWh, kW the ms) pe annual flow th ough p o ect wate /wastewate fac l t es	Ave age annual Net The ms sav ngs pe annual flow th ough p oject wate /wastewate fac l t es	Publ c Secto (P)	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	0	0	0	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	Not Ava lable	Not Ava lable	Nume ato cla med sav ngs f om wate /wastewate custome sDenom nato No MM gallons of flow data ava lable. P opose study to collect and basel ne.		
210	SCG	A07	P4	P1	Pe cent	P1 Penet at on of ene gy eff c ency p og ams n the el g ble ma ket Pe cent of Pa t c pat on	Met c	P-P1 - Pe cent of Publ c Secto accounts pa t c pat ng n p og ams	Pe cent of Publ c Secto accounts pa t c pat ng n p og ams	Publ c Secto (P)	2016	272	13,338	2.0%	1.3%	1.3%	2.1%	1.4%	2.2%	1.8%	3.1%	P1 Methodology Nume ato Numbe of downst eam pa t c pat ng (se v ce accounts) Denom nato total numbe of (se v ce accounts) n the secto .	Pa t c pat on s def ned as the f st nstance of pa t c pat on, should a custome pa t c pate mo e than once o pa t c pate n mu t ple p og ams n the calenda yea . PAs also need to have enough nfo mat on about a custome to dete m ne f the custome s n the el g ble populat on and se v ce te to y.	
211	SCG	A07	P4	P2	Pe cent	P2 Penet at on of ene gy eff c ency p og ams n te ms of square feet of el gible populat on	Ind cato	P-P2[Ind cato] Pe cent of est mated floo plan a ea (.e., t2) of a l Publ c Secto bu ld ngs pa t c pat ng n bu ld ng p ojects—est mate w th n /-15% of secto -w de bu ld ng a ea, /-5% of p o ect bu ld ng a ea	Pe cent of est mated loo plan a ea (.e., ft2) of all Publ c Secto bu ld ngs pa t c pat ng n bu ld ng p ojects	Publ c Secto (P)	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	Not Ava lable	Not Ava lable	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	P2 Methodology Nume ato squa e footage of pa t c pat ng se v ce accounts (Avg sqft/p o ect X # of p o ects)Denom nato Squa e footage of secto pe 2015 CEC analys s (Mohsen Ab sham)		
212	SCG	A07	P4	W2	Pe cent	Wate	Ind cato	P-W2[Ind cato] Pe cent of Publ c Secto wate /wastewate low (e., annual ave age M ll on Ga lons pe Day) en o led n non-bu ld ng wate /wastewate p og ams—est mate w th n /-20% of flow th ough el g ble fac l t es (t eatment fac l t es pump ng stat ons), /-10% of flow th ough p o ect fac l t es	Pe cent of Publ c Secto wate /wastewate flow en o led n non-bu ld ng wate /wastewate p og ams	Publ c Secto (P)	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	0	0	0	Not Ava lable	Not Ava lable	Not Ava lable	Not Ava lable	Not Ava lable	No MM ga lons of flow data ava lable. P opose a study to co lect and basel ne.		
215	SCG	A07	P5	LC	PAC Level zed Cost ($/the m)	Cost pe un t saved	Met c	P-LC - Level zed cost of ene gy eff c ency pe kWh, the m and kW (use both TRC and PAC)	PAC Level zed Cost ($/the m)	Publ c Secto (P)	2016	3,211 173	5,425,342	0.59	0.32	0 31	0.59	0 59	0.59	0 59	0.59	Pe CEDARS	None	
218	SCG	A07	P5	LC	TRC Level zed Cost ($/the m)	Cost pe un t saved	Met c	P-LC - Level zed cost of ene gy eff c ency pe kWh, the m and kW (use both TRC and PAC)	TRC Level zed Cost $/the m)	Publ c Secto (P)	2016	4,358 165	5,425,342	0.80	0.50	0 65	0.8	0.8	0 8	0.8	0 8	Pe CEDARS	None	
219	SCG	A07	P6	F2	$	Investment n EE	Ind cato	P-F2 - [Ind cato] Total p og am-backed f nanc ng d st buted to Publ c Secto custome s equ ng epayment (.e., loans, OBF)	Total p og am-backed f nanc ng d st buted to Publ c Secto custome s equ ng epayment	Publ c Secto (P)	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	Not Ava lable	Not Ava lable	Not Ava lable	Not Ava lable	Not Ava lable	Not Ava lable	Not Ava lable	P-F2 Method Total amount loaned th ough PA p og ams	Def ne Total p og am backed f nanc ng... equ ng epayment = total loan amount	
220	SCG	A07	P7	B3	Pe cent	Publ c Secto Benchma k ng Penet at on Calenda Yea	Met c	P-B3 - Pe cent of Publ c Secto bu ld ngs w th cu ent benchma k	Pe cent of Publ c Secto bu ld ngs w th cu ent benchma k	Publ c Secto (P)	2016	451	13,338	3.4%	3.5%	5.0%	3.6%	3.6%	3.6%	4.0%	4.5%		Def "cu ent" = "w th n calenda yea "	
221	SCG	A07	P7	E14	KBtu/Sqft	Ene gy Intens ty pe publ c secto bu ld ng	Met c	P-E14 Ave age ene gy use ntens ty of all Publ c Secto bu ld ngs	Ave age ene gy use ntens ty of all Publ c Secto bu ld ngs	Publ c Secto (P)	2016	15,034,684 500	141,729,588	106	107	116	105	104	104	101	95	Method (ED Okay)Nume ato Total secto -level ene gy use, f om PA b ll ng dataDenom nato Numbe of publ c secto accounts * Avg Sqft		
222	SCG	A07	P7	B4	Pe cent	Publ c Secto Squa e Foot Benchma k ng Penet at on n Calenda Yea	Ind cato	B4-P[Ind cato] Pe cent of floo plan a ea of a l Publ c Secto bu ld ngs w th cu ent benchma k	Pe cent of floo plan a ea of all Publ c Secto bu ld ngs w th cu ent benchma k	Publ c Secto (P)	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	2%	1%	1%	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	Nume ato Total squa e footage of publ c bu ld ngs benchma ked w th n calenda yea , n Po tfol o Manage Denom nato Total squa e footage of all benchma ked Publ c secto bu ld ngs, n Po tfol o Manage		
227	SCG	A08	In1	S1	F st yea annual The m g oss	S1 Ene gy Sav ngs	Met c	In-S1- F st yea annual zed and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net) n ndust al secto	F st yea annual The m g oss	Indust al (I)	2016	N/A	N/A	4 579,095	1,429 754	936,228	3,004,424	4,693,572	4,808 049	15 111,012	13,737 284	pe CEDARS	None	
228	SCG	A08	In1	S1	F st yea annual The m net	S1 Ene gy Sav ngs	Met c	In-S1- F st yea annual zed and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net) n ndust al secto	F st yea annual The m net	Indust al (I)	2016	N/A	N/A	2 372,078	821 624	530,172	1,596,851	2,431,380	2,490 682	7 827,857	7,116 234	pe CEDARS	None	
233	SCG	A08	In1	S1	L fecycle ex-ante The m g oss	S1 Ene gy Sav ngs	Met c	In-S1- F st yea annual zed and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net) n ndust al secto	L fecycle ex-ante The m g oss	Indust al (I)	2016	N/A	N/A	42 317,801	19,790 562	15 041,075	42,317,801	43,375,746	44,433 691	139 648,743	126,953 403	pe CEDARS	None	
234	SCG	A08	In1	S1	L fecycle ex-ante The m net	S1 Ene gy Sav ngs	Met c	In-S1- F st yea annual zed and l fecycle ex-ante (p e-evaluat on) gas, elect c, and demand sav ngs (g oss and net) n ndust al secto	L fecycle ex-ante The m net	Indust al (I)	2016	N/A	N/A	23 612,963	11,318 758	8 509,879	23,612,963	24,203,287	24,793 611	77 922,776	70,838 888	pe CEDARS	None	
235	SCG	A08	In2	G	MT CO2eq	GHG	Met c	I-G- G eenhouse gasses (MT CO2eq) Net kWh sav ngs, epo ted on an annual bas s	CO2-equ valent of net annual kWh sav ngs	Indust al (I)	2016	N/A	N/A	21,329	8 590	4,665	21,329	21,862	22 395	23,462	31 994	Pe CEDARS		
236	SCG	A08	In3	P1L	Pe cent	P1 Penet at on of ene gy eff c ency p og ams n the el g ble ma ket Pe cent of Pa t c pat on	Met c	In-P1LPe cent of pa t c pat on elat ve to el g ble populat on fo small, med um and la ge custome s	Pe cent of pa t c pat on elat ve to el g ble populat on fo small custome s	Indust al (I)	2016	19	14,827	0.13%	0.08%	0.05%	0.13%	0.13%	0.13%	0.14%	0.19%	P1 Methodology Nume ato Numbe of downst eam pa t c pat ng (se v ce accounts) Denom nato total numbe of (se v ce accounts) n the secto .	Pa t c pat on s def ned as the f st nstance of pa t c pat on, should a custome pa t c pate mo e than once o pa t c pate n mu t ple p og ams n the calenda yea . PAs also need to have enough nfo mat on about a custome to dete m ne f the custome s n the el g ble populat on and se v ce te to y.	
237	SCG	A08	In3	P1M	Pe cent	P1 Penet at on of ene gy eff c ency p og ams n the el g ble ma ket Pe cent of Pa t c pat on	Met c	In-P1MPe cent of pa t c pat on elat ve to el g ble populat on fo small, med um and la ge custome s	Pe cent of pa t c pat on elat ve to el g ble populat on fo med um custome s	Indust al (I)	2016	12	1,182	1.02%	0.78%	0.53%	1.02%	1.04%	1.07%	1.12%	1.52%	P1 Methodology Nume ato Numbe of downst eam pa t c pat ng (se v ce accounts) Denom nato total numbe of (se v ce accounts) n the secto .	Pa t c pat on s def ned as the f st nstance of pa t c pat on, should a custome pa t c pate mo e than once o pa t c pate n mu t ple p og ams n the calenda yea . PAs also need to have enough nfo mat on about a custome to dete m ne f the custome s n the el g ble populat on and se v ce te to y.	
238	SCG	A08	In3	P1S	Pe cent	P1 Penet at on of ene gy eff c ency p og ams n the el g ble ma ket Pe cent of Pa t c pat on	Met c	In-P1SIn-P1MIn-P1LPe cent of pa t c pat on elat ve to el g ble populat on fo sma l, med um and la ge custome s	Pe cent of pa t c pat on elat ve to el g ble populat on fo la ge custome s	Indust al (I)	2016	54	1,186	4.6%	3.2%	2.9%	4.55%	4.67%	4.78%	5.01%	6.83%	P1 Methodology Nume ato Numbe of downst eam pa t c pat ng (se v ce accounts) Denom nato total numbe of (se v ce accounts) n the secto .	Pa t c pat on s def ned as the f st nstance of pa t c pat on, should a custome pa t c pate mo e than once o pa t c pate n mu t ple p og ams n the calenda yea . PAs also need to have enough nfo mat on about a custome to dete m ne f the custome s n the el g ble populat on and se v ce te to y.	
239	SCG	A08	In4	P5L	Pe cent	New pa t c pat on	Ind cato	I-P5[Ind cato] Pe cent of custome s pa t c pat ng that have not ece ved an ncent ve fo the past th ee yea s, annually, by sma l, med um and la ge custome catego es	Pe cent of la ge custome s pa t c pat ng n epo t ng yea that have not ece ved an ncent ve fo the past th ee yea s	Indust al (I)	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	0.09%	0.08%	0.05%	N/A - Ind cato	N/A - Ind cato	Not Ava lable	Not Ava lable	Not Ava lable	Nume ato Annual numbe of La ge Indust al pa t c pants (by se v ce account) that had not ece ved a downst eam ncent ve fo the past 3 yea s (f om date of ncent ve payment)Denom nato Total numbe of La ge Indust al se v ce accounts n the secto /segment	PAs w ll use PA-spec f c def n t on fo S, M, & L custome s, because BP st ateg es we e developed fo custome s segmented by those def n t ons.	
240	SCG	A08	In4	P5M	Pe cent	New pa t c pat on	Ind cato	I-P5[Ind cato] Pe cent of custome s pa t c pat ng that have not ece ved an ncent ve fo the past th ee yea s, annually, by sma l, medium and la ge custome catego es	Pe cent of med um custome s pa t c pat ng n epo t ng yea that have not ece ved an ncent ve fo the past th ee yea s	Indust al (I)	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	1.02%	0.61%	0.44%	N/A - Ind cato	N/A - Ind cato	Not Ava lable	Not Ava lable	Not Ava lable	Nume ato Annual numbe of Med um Indust al pa t c pants (by se v ce account) that had not ece ved a downst eam ncent ve fo the past 3 yea s (f om date of ncent ve payment)Denom nato Total numbe of Med um Indust al se v ce accounts n the secto /segment	PAs w ll use PA-spec f c def n t on fo S, M, & L custome s, because BP st ateg es we e developed fo custome s segmented by those def n t ons.	
241	SCG	A08	In4	P5S	Pe cent	New pa t c pat on	Ind cato	I-P5[Ind cato] Pe cent of custome s pa t c pat ng that have not ece ved an ncent ve fo the past th ee yea s, annually, by sma l, med um and large custome catego es	Pe cent of small custome s pa t c pat ng n epo t ng yea that have not ece ved an ncent ve fo the past th ee yea s	Indust al (I)	N/A - Ind cato	N/A - Ind cato	N/A - Ind cato	2.87%	2.48%	2.25%	N/A - Ind cato	N/A - Ind cato	Not Ava lable	Not Ava lable	Not Ava lable	Nume ato Annual numbe of Small Indust al pa t c pants (by se v ce account) that had not ece ved a downst eam ncent ve fo the past 3 yea s (f om date of ncent ve payment)Denom nato Total numbe of Small Indust al se v ce accounts n the secto /segment	PAs w ll use PA-spec f c def n t on fo S, M, & L custome s, because BP st ateg es we e developed fo custome s segmented by those def n t ons.	
244	SCG	A08	In5	LC	PAC Level zed Cost ($/the m)	Cost pe un t saved	Met c	I-LC - Level zed cost of ene gy eff c ency pe kWh, the m and KW (use both TRC and PAC)	PAC Level zed Cost ($/the m)	Indust al (I)	2016	6,496 364	23,612,963	0.28	0.35	0 55	0.28	0.28	0.28	0 28	0.28	Pe CEDARS	None	
247	SCG	A08	In5	LC	TRC Level zed Cost ($/the m)	Cost pe un t saved	Met c	I-LC - Level zed cost of ene gy eff c ency pe kWh, the m and KW (use both TRC and PAC)	TRC Level zed Cost $/the m)	Indust al (I)	2016	9,970 136	23,612,963	0.42	0.44	0 61	0.42	0.42	0.42	0 42	0.42	Pe CEDARS	None	
252	SCG	A08	In6	S2	Pe cent f st yea annual The m g oss	S2 Pe cent Ove all Secto al Sav ngs	Met c	I-RC - Reduct on n consumpt on (p oposed by SCE and SDG&E)	Pe cent f st yea annual The m g oss	Indust al (I)	2016	4,579 095	712,174,240	0.64%	0.20%	0.13%	0 64%	0.63%	0.61%	0.58%	0.55%	S2 Methodology Nume ato = Met c C1 Denom nato = Total secto al usage, f om PA b l ng database	Def ne Reduct on n consumpt on = ene gy sav ngs.	
253	SCG	A08	In6	S2	Pe cent f st yea annual The m net	S2 Pe cent Ove all Secto al Sav ngs	Met c	I-RC - Reduct on n consumpt on (p oposed by SCE and SDG&E)	Pe cent f st yea annual The m net	Indust al (I)	2016	23,612 963	712,174,240	3.32%	1.62%	0.08%	3.32%	3.23%	3.15%	2.98%	2.82%	S2 Methodology Nume ato = Met c C1 Denom nato = Total secto al usage, f om PA b l ng database	Def ne Reduct on n consumpt on = ene gy sav ngs.	

Spreadsheet Index	PA	AttA Page	AttA Order	Method Code	Units of Measurement	Metric Type	Metr c/ Ind cator	Business Plan Att A Descript on	Metric	Sector	Basel ne Year	Basel ne Numerator	Basel ne Denominator	Actual 2016	Actual 2017	Actual 2018	Short Term Target 2018	Short Term Target 2019	Short Term Target 2020	M d Term Target (2021-2023) Cumulative	Long Term Target (2024-2025) Cumulative	Methodology	Key Defin tions	Proxy Explanat on
258	SCG	A08	In6	S2	Pe cent l fecycle ex-ante The m g oss	S2 Pe cent Ove all Secto al Sav ngs	Met c	I-RC - Reduct on n consumpt on (p oposed by SCE and SDG&E)	Pe cent l fecycle ex-ante The m g oss	Indust al (I)	2016	42,317 801	712,174,240	5.94%	2.83%	2.14%	5.94%	5.79%	5.64%	5.35%	5.05%	S2 Methodology Nume ato = Met c C1 Denom nato = Total secto al usage, f om PA b l ng database	Def ne Reduct on n consumpt on = ene gy sav ngs.	
259	SCG	A08	In6	S2	Pe cent l fecycle ex-ante The m net	S2 Pe cent Ove all Secto al Sav ngs	Met c	I-RC - Reduct on n consumpt on (p oposed by SCE and SDG&E)	Pe cent l fecycle ex-ante The m net	Indust al (I)	2016	23,612 963	712,174,240	3.32%	1.62%	1.21%	3.32%	3.23%	3.15%	2.98%	2.82%	S2 Methodology Nume ato = Met c C1 Denom nato = Total secto al usage, f om PA b l ng database	Def ne Reduct on n consumpt on = ene gy sav ngs.	
264	SCG	A09	A1	S1	F st yea annual The m g oss	S1 Ene gy Sav ngs	Met c	Ag-S1 - F st yea and l fecycle ex ante (p e-evaluat on) annual zed gas, elect c, and demand sav ngs n ag cu tu e secto , g oss and net	F st yea annual The m g oss	Ag cultu al (A)	2016	N/A	N/A	655,844	1,371 872	1 692,831	655,844	672,240	688 636	2 164,286	1,508 442	pe CEDARS	None	
265	SCG	A09	A1	S1	F st yea annual The m net	S1 Ene gy Sav ngs	Met c	Ag-S1 - F st yea and l fecycle ex ante (p e-evaluat on) annual zed gas, elect c, and demand sav ngs n ag cu tu e secto , g oss and net	F st yea annual The m net	Ag cultu al (A)	2016	N/A	N/A	400,312	889 092	1 087,033	400,312	410,320	420 328	1 321,031	920 719	pe CEDARS	None	
270	SCG	A09	A1	S1	L fecycle ex-ante The m g oss	S1 Ene gy Sav ngs	Met c	Ag-S1 - F st yea and l fecycle ex ante (p e-evaluat on) annual zed gas, elect c, and demand sav ngs n ag cu tu e secto , g oss and net	L fecycle ex-ante The m g oss	Ag cultu al (A)	2016	N/A	N/A	3 437,678	8,648 090	14 252,908	3,437,678	3,523,620	3,609 562	11 344,339	7,906 660	pe CEDARS	None	
271	SCG	A09	A1	S1	L fecycle ex-ante The m net	S1 Ene gy Sav ngs	Met c	Ag-S1 - F st yea and l fecycle ex ante (p e-evaluat on) annual zed gas, elect c, and demand sav ngs n ag cu tu e secto , g oss and net	L fecycle ex-ante The m net	Ag cultu al (A)	2016	N/A	N/A	2 091,128	5,583 216	8 740,458	2,091,128	2,143,407	2,195 685	6 900,724	4,809 595	pe CEDARS	None	
272	SCG	A09	A2	G	MT CO2eq	GHG	Met c	A-G - G eenhouse gasses (MT CO2eq) Net kWh sav ngs, epo ted on an annual bas s	CO2-equ valent of net annual kWh sav ngs	Ag cultu al (A)	2016	N/A	N/A	3,953	8 177	9,031	3,953	4,052	4 151	4,348	4 546	Pe CEDARS		
273	SCG	A09	A3	P1 Pa t cpants	Pe cent	P1 Penet at on of ene gy eff c ency p og ams n the el g ble ma ket Pe cent of Pa t c pat on	Met c	Ag-P1SPe cent of pa t c pat on elat ve to el g ble populat on fo small, med um and la ge custome s	Pe cent of pa t c pat on elat ve to el g ble populat on fo **large** custome s	Ag cultu al (A)	2016	14	275	5.1%	7.7%	6.6%	5.1%	5.2%	5.3%	5.5%	5.6%	P1 Methodology Nume ato Numbe of downst eam pa t c pat ng (by b ll accounts) Denom nato total numbe of accounts n the ag cultu al secto .	Pa t c pat on s def ned as the f st nstance of pa t c pat on, should a custome pa t c pate mo e than once o pa t c pate n mu t ple p og ams n the calenda yea . PAs also need to have enough nfo mat on about a custome to dete m ne f the custome s n the el g ble populat on and se v ce te to y.	
274	SCG	A09	A3	P1 Pa t cpants	Pe cent	P1 Penet at on of ene gy eff c ency p og ams n the el g ble ma ket Pe cent of Pa t c pat on	Met c	Ag-P1M Pe cent of pa t c pat on elat ve to el g ble populat on fo small, med um and la ge custome s	Pe cent of pa t c pat on elat ve to el g ble populat on fo **medium** custome s	Ag cultu al (A)	2016	6	498	1.2%	0.7%	0.4%	1.2%	1.2%	1.3%	1.3%	1.4%	P1 Methodology Nume ato Numbe of downst eam pa t c pat ng (by b ll accounts) Denom nato total numbe of accounts n the ag cultu al secto .	Pa t c pat on s def ned as the f st nstance of pa t c pat on, should a custome pa t c pate mo e than once o pa t c pate n mu t ple p og ams n the calenda yea . PAs also need to have enough nfo mat on about a custome to dete m ne f the custome s n the el g ble populat on and se v ce te to y.	
275	SCG	A09	A3	P1 Pa t cpants	Pe cent	P1 Penet at on of ene gy eff c ency p og ams n the el g ble ma ket Pe cent of Pa t c pat on	Met c	Ag-P1LPe cent of pa t c pat on elat ve to el g ble populat on fo small, med um and la ge custome s	Pe cent of pa t c pat on elat ve to el g ble populat on fo **small** custome s	Ag cultu al (A)	2016	0	1,198	0.00%	0.00%	0.00%	1.2%	1.2%	1.3%	1.3%	1.4%	P1 Methodology Nume ato Numbe of downst eam pa t c pat ng (by b ll accounts) Denom nato total numbe of accounts n the ag cultu al secto .	Pa t c pat on s def ned as the f st nstance of pa t c pat on, should a custome pa t c pate mo e than once o pa t c pate n mu t ple p og ams n the calenda yea . PAs also need to have enough nfo mat on about a custome to dete m ne f the custome s n the el g ble populat on and se v ce te to y.	
278	SCG	A09	A4	LC	PAC Level zed Cost ($/the m)	Cost pe un t saved	Met c	A-LC - Level zed cost of ene gy eff c ency pe kWh, the m and kW (use both TRC and PAC)	PAC Level zed Cost ($/the m)	Ag cultu al (A)	2016	664 577	2,091,128	0.32	0.34	0 22	0.32	0 32	0.32	0.32	0.32	Pe CEDARS	None	
281	SCG	A09	A4	LC	TRC Level zed Cost ($/the m)	Cost pe un t saved	Met c	A-LC - Level zed cost of ene gy eff c ency pe kWh, the m and kW (use both TRC and PAC)	TRC Level zed Cost $/the m)	Ag cultu al (A)	2016	925 993	2,091,128	0.44	0.48	0 31	0.44	0 44	0.44	0.44	0.44	Pe CEDARS	None	
283	SCG	A10	CS1	S1	Net MMThe ms	S1 Ene gy Sav ngs	Met c	Net Ene gy Sav ngs GWH, M The ms and MW (demand)	Net MMThe ms sav ngs	Codes & Standa ds (CS)	2016	N/A	N/A	29	42	45	26	26	30	100	65	EM&V study	2018-2025 cons stent w th adopted goals f om D.17-09-025, Tables 1, 2, and 3, p. 37-39 2016 f om CEDARS (sp love not ncluded). Values summed ac oss all fou IOUs. Sav ngs s def ned as Net F st yea sav ngs.	
285	SCG	A10	CS2	1	Count	Advocacy-Bu ld ng	Met c	Numbe of measu es suppo ted by CASE stud es n ulemak ng cycle (cu ent wo k)	Numbe of measu es suppo ted by CASE stud es n ulemak ng cycle (cu ent wo k)	Codes & Standa ds (CS)	2016	N/A	N/A	12	23	64	4	4	4	12	12	Measu es suppo ted by CASE	Basel ne and ta gets fo measu es suppo ted a e fo 3 yea cycle athe than annual.	
286	SCG	A10	CS2	2	Count	Advocacy-Bu ld ng	Met c	Numbe of measu es adopted by CEC n ulemak ng cycle (nd cato of past wo k)	Numbe of measu es adopted by CEC n ulemak ng cycle (nd cato of past wo k)	Codes & Standa ds (CS)	2016	N/A	N/A	12	0	57	4	4	4	12	12	Measu es adopted by CEC	Basel ne and ta gets fo measu es suppo ted a e fo 3 yea cycle athe than annual.	
287	SCG	A10	CS3	1	Count	Advocacy-Appl ance	Met c	Numbe of T-20 measu es suppo ted by CASE stud es n ulemak ng cycle (cu ent wo k)	Numbe of T-20 measu es suppo ted by CASE stud es n ulemak ng cycle (cu ent wo k)	Codes & Standa ds (CS)	2017	N/A	N/A	5	5	4	3	3	4	10	10	T 20 measu es suppo ted by CASE	Basel ne s annual. Ta gets fo measu es suppo ted a e fo 3 yea cycle athe than annual. 2017 chosen as basel ne s nce 2016 was ze o.	
288	SCG	A10	CS3	2	Count	Advocacy-Appl ance	Met c	Numbe of measu es adopted by CEC n cu ent yea	Numbe of measu es adopted by CEC n cu ent yea	Codes & Standa ds (CS)	2016	N/A	N/A	4	0	3	3	3	4	10	10	Measu es adopted by CEC	Basel ne s annual. Ta gets fo measu es adopted a e fo 3 yea cycle athe than annual.	
289	SCG	A10	CS4	1	Count	Advocacy-Fede al	Met c	Numbe of fede al standa ds adopted fo wh ch a ut l ty advocated (OUs to l st advocated act v tes)	Numbe of fede al standa ds adopted fo wh ch a ut l ty advocated (IOUs to l st advocated act v tes)	Codes & Standa ds (CS)	2016	N/A	N/A	22	7	0	7	7	7	20	20	Standa ds adopted	Basel nes and ta gets a e annual. Any fede al standa ds based upon T tle 20 that we e adopted w ll st ll be ncluded n the fede al count.	
290	SCG	A10	CS4	2	Count	Advocacy-Fede al	Met c	Pe cent of fede al standa ds adopted fo wh ch a ut l ty advocated (#IOU suppo ted / # DOE adopted)	Pe cent of fede al standa ds adopted fo wh ch a ut l ty advocated (#IOU suppo ted / # DOE adopted)	Codes & Standa ds (CS)	2016	N/A	N/A	100%	100%	N/A	100%	100%	100%	100%	100%	# IOUs suppo ted # DOE adopted	Basel nes and ta gets a e annual.	
291	SCG	A10	CS5	1	Count	Reach Codes	Met c	The numbe of local gove nment Reach Codes mplemented th s s a o nt IOU and REN effo t)	The numbe of local gove nment Reach Codes mplemented (th s s a jo nt OU and REN effo t)	Codes & Standa ds (CS)	2016	N/A	N/A	6	12	5	5	5	5	25	25	Reach Code o d nances mplemented	Ta gets a e total fo a th ee-yea T tle 24 code cycle. Ju sd ct ons hav ng mult ple each codes w ll be counted by each code athe than by ju sd ct on. Accompl shments w ll be epo ted f om the CEC Reach Codes webs te (http //www.ene gy.ca gov/t tle24/2013standa ds/o d nances/).	
292	SCG	A11	CS6	1	Count	Compl ance Imp ovement	Met c	Numbe of t a n ng act v t es (classes, web na s) held, numbe of ma ket acto s pa t c pants by segment (e.g. bu ld ng off c als, bu lde s, a ch tects, etc.) and the the total s ze (numbe of the ta get aud ence) by secto . (M) Numbe of t a n ng act v t es	Numbe of t a n ng act v t es (classes, web na s) held, numbe of ma ket acto s pa t c pants by segment (e.g. bu ld ng off c als, bu lde s, a ch tects, etc.) and the the total s ze (numbe of the ta get aud ence) by secto . (M) Numbe of t a n ng act v t es	Codes & Standa ds (CS)	2017	N/A	N/A	138	118	191	138	138	138	138	138	Numbe of t a n ng act v t es pe yea	118 l ve t a n ng sess ons and 20 web na s n 2017 sho t, m d, and long-te m ta gets a e annual	
293	SCG	A11	CS6	2	Count	Compl ance Imp ovement	Met c	Numbe of t a n ng act v t es (classes, web na s) held, numbe of ma ket acto s pa t c pants by segment (e.g. bu ld ng off c als, bu lde s, a ch tects, etc.) and the the total s ze (numbe of the ta get aud ence) by secto . (M) Numbe of pa t c pants	Numbe of t a n ng act v t es (classes, web na s) held, numbe of ma ket acto s pa t c pants by segment (e.g. bu ld ng off c als, bu lde s, a ch tects, etc.) and the the total s ze (numbe of the ta get aud ence) by secto . (M) Numbe of pa t c pants	Codes & Standa ds (CS)	2017	N/A	N/A	3,600	3,000	4,970	3600	3600	3600	3600	3600	Numbe of pa t c pants pe yea	3,000 attendees fo l ve t a n ng and 600 attendees fo web na s n 2017 sho t, m d, and long-te m ta gets a e annual. Attendees w ll be shown by majo segment (e., bu ld ng off c als, bu lde s, a ch tects, HERS ate s) and ta get s ze of each segment w ll be p ov ded du ng f st met cs epo t ng.	
294	SCG	A11	CS6	3	Sco e	Compl ance Imp ovement	Met c	Inc ease n code compl ance knowledge p e/post t a n ng	Inc ease n code compl ance knowledge p e/post t a n ng	Codes & Standa ds (CS)	2017	N/A	N/A	20%	20%	18%	20%	20%	20%	20%	20%	Knowledge sco e	Code compl ance knowledge nc ease w ll be tested v a p e and post t a n ng quest onna es. Su veys w ll be conducted fo t a n ng that lasts longe than th ee hou s (n o de to p ese ve t me fo nst uct on n sho te t a n ng sess ons). Quest onna es w ll be made ava lable du ng the f st met cs epo t ng.	
301	SCG	A12	WET-1	1	Count	Collabo at ons	Met c	Numbe of collabo at ons by Bus ness Plan secto to o ntly develop o sha e t a n ng mate als o esou ces.	Numbe of co labo at ons by Bus ness Plan secto to jo ntly develop o sha e t a n ng mate als o esou ces.	Wo kfo ce Educat on and T a n ng (WET)	2016	N/A	N/A	0	0	0				10 by yea 7	15 by yea 10	Staff nput.	Collabo at ons mean sha ng mutua ly-benef c al esou ces such as t a n ng mate als, expe t se, and ma ket ng/out each tact cs that help ach eve WE&T goals and outcomes and that suppo t the collabo at ng o gan zat ons' goals and object ves.	
302	SCG	A12	WET-2	1	Count	Penet at on	Met c	Numbe of pa t c pants by secto	Numbe of pa t c pants by secto	Wo kfo ce Educat on and T a n ng (WET)	2016	N/A	N/A	Res dent al 5,700 Non-Res 4,700 TOTAL 10,400	Res dent al 5 364 Non-Res 4 236 TOTAL 9 600	Res dent al 4,652 Non-Res 3,611 TOTAL 8,263	9,000	8,000	7 000	21,000	14 000	Repo t f om class eg st at on database. Pe yea .	Secto efe s to a. Res dent al ve sus non- es dent al b. Ene gy eff c ency t a n ng top c a eas (e.g., L ght ng, HVAC, ag cu tu e) Pa t c pants means agg egate class attendance, mean ng that one pe son attend ng two classes th oughout the yea would qual fy as two pa t c pants. Please note that the IOUs began us ng a standa d catego zat on of t a n ng top c a eas n 2018.	

Spreadsheet Index	PA	AttA Page	AttA Order	Method Code	Units of Measurement	Metric Type	Metr c/ Ind cator	Business Plan Att A Descr pt on	Metric	Sector
303	SCG	A12	WET-2	1	Pe centage	Penet at on	Met c	Pe cent of pa t c pat on elat ve to el g ble ta get populat on fo cu culum	Pe cent of pa t c pat on elat ve to el g ble ta get populat on fo cu culum	Wo kfo ce Educat on and T a n ng (WET)
304	SCG	A12	WET-3	1	Pe centage	D ve s ty	Met c	Pe cent of total WE&T t a n ng p og am pa t c pants that meet the def n t on of d sadvantaged wo ke .	Pe cent of total WE&T t a n ng p og am pa t c pants that meet the def n t on of d sadvantaged wo ke .	Wo kfo ce Educat on and T a n ng (WET)
305	SCG	A12	WET-3	1	Pe centage	D ve s ty	Met c	Pe cent of ncent ve dolla s spent on cont acts* w th a demonst ated comm tment to p ov de ca ee pathways to d sadvantaged wo ke s	Pe cent of ncent ve dolla s spent on cont acts* w th a demonst ated comm tment to p ov de ca ee pathways to d sadvantaged wo ke s	Wo kfo ce Educat on and T a n ng (WET)
306	SCG	A12	WET-3	1	Count	D ve s ty	Ind cato	Numbe Ca ee & Wo kfo ce Read ness CWR) pa t c pants who have been employed fo 12 months afte ece v ng the t a n ng	Numbe Ca ee & Wo kfo ce Read ness (CWR) pa t c pants who have been employed fo 12 months afte ece v ng the t a n ng	Wo kfo ce Educat on and T a n ng (WET)
307	SCG	A13	ETP-M1	1	Count	Resea ch P o t zat on	Met c	ETP-M1 Numbe of TPMs n t ated (gas and elect c comb ned), nclud ng one technology-focused p lot (TFP) TPM *Th s numbe w ll be updated once all th d pa ty cont acts have been awa ded.	ETP-M1 Numbe of TPMs n t ated (gas and elect c comb ned), nclud ng one technology-focused p lot (TFP) TPM	Eme g ng Technolog es (ET)
308	SCG	A13	ETP-M2	1	Count of TPMs	Resea ch P o t zat on	Met c	ETP-M2 Numbe of TPMs updated *Th s numbe w ll be updated once all th d pa ty cont acts have been awa ded.	ETP-M2 Numbe of TPMs updated	Eme g ng Technolog es (ET)
309	SCG	A13	ETP-M3	1	Count of P ojects	P ojects	Met c	ETP-M3 Numbe of p ojects n t ated *Th s numbe w ll be updated once all th d pa ty cont acts have been awa ded.	ETP-M3 Numbe of p o ects n t ated	Eme g ng Technolog es (ET)
310	SCG	A13	ETP-M4	1	Count of Events	Out each	Met c	ETP-M4 Numbe of out each events w th technology develope s w th p oducts 1 yea f om comme c al zat on, nclud ng new technology vendo s, manufactu e s, and ent ep eneu s. *Th s numbe w ll be updated once all th d pa ty cont acts have been awa ded.	ETP-M4 Numbe of out each events w th technology develope s w th p oducts 1 yea f om comme c al zat on, nclud ng new technology vendo s, manufactu e s, and ent ep eneu s	Eme g ng Technolog es (ET)
311	SCG	A13	ETP-M5	1	Count of Events	Out each	Met c	ETP-M5 Numbe of out each events w th technology develope s w th p oducts 5 yea s f om comme c al zat on, nclud ng new technology vendo s, manufactu e s, and ent ep eneu s. *Th s numbe w ll be updated once all th d pa ty cont acts have been awa ded.	ETP-M5 Numbe of out each events w th technology develope s w th p oducts 5 yea s f om comme c al zat on, nclud ng new technology vendo s, manufactu e s, and ent ep eneu s	Eme g ng Technolog es (ET)
312	SCG	A14	ETP-M6	1	Count of TFPs	P lots	Met c	ETP-M6 Numbe of p ojects n t ated w th coope at on f om othe nte nal IOU p og ams assoc ated w th each Technology-focused P lot *Th s numbe w ll be updated once all th d pa ty cont acts have been awa ded.	ETP-M6 Numbe of p ojects n t ated w th coope at on f om othe nte nal IOU p og ams assoc ated w th each Technology-focused P lot	Eme g ng Technolog es (ET)
313	SCG	A14	ETP-M7	1	Count of TFPs	P lots	Met c	ETP-M7 Numbe of Technology-Focused P lot (TFP) n t ated as pa t of the TFP TPM. *Th s numbe w ll be updated once all th d pa ty cont acts have been awa ded.	ETP-M7 Numbe of Technology-Focused P lot (TFP) n t ated as pa t of the TFP TPM	Eme g ng Technolog es (ET)
314	SCG	A15	ETP-T1	1	Pe cent of New Measu es	Measu e T ac ng	Met c	ETP-T1 P o yea % of new measu es added to the po tfol o that we e p ev ously ETP technolog es *The PAs bel eve th s s not su ted fo a met c w th ta gets because ETP does not make dec s ons about new measu es.	ETP-T1 P o yea % of new measu es added to the po tfol o that we e p ev ously ETP technolog es	Eme g ng Technolog es (ET)
315	SCG	A15	ETP-T2	1	Count of New Measu es	Measu e T ac ng	Met c	ETP-T2 P o Yea # of new measu es added to the po tfol o that we e p ev ously ETP technolog es. *The PAs bel eve th s s not su ted fo a met c w th ta gets because ETP does not make dec s ons about new measu es.	ETP-T2 P o Yea # of new measu es added to the po tfol o that we e p ev ously ETP technolog es	Eme g ng Technolog es (ET)
316	SCG	A15	ETP-T3	1	Pe cent	Measu e T ac ng	Met c	ETP-T3 P o yea % of new codes o standa ds that we e p ev ously ETP technolog es. *The PAs bel eve th s s not su ted fo a met c w th ta gets because ETP does not make dec s ons about new codes o standa ds.	ETP-T3 P o yea % of new codes o standa ds that we e p ev ously ETP technolog es	Eme g ng Technolog es (ET)

Spreadsheet Index	Basel ne Year	Basel ne Numerator	Basel ne Denominator	Actual 2016	Actual 2017	Actual 2018	Short Term Target 2018	Short Term Target 2019	Short Term Target 2020	M d Term Target (2021-2023) Cumulative	Long Term Target (2024-2025) Cumulative	Methodology	Key Defin tions	Proxy Explanat on
303	2016	4 664	177,785	2.6%	2.3%	2.4%	10%	10%	10%	10%	10%	Nume ato Repo t f om class eg st at on database. Denom nato Advanced Ene gy Economy Inst tute (AEEI) epo t f nd ng "Ene gy Eff c ency accounts fo the la gest sha e of advanced ene gy jobs n Cal fo n a. About s x n 10 advanced ene gy wo ke s a e employed n the Ene gy Eff c ency secto these f ms suppo t ove 321,000 obs." Assume advanced Ene gy Eff c ency obs a e comm se ate w th populat on fo each PA te to y.	Pa t c pat on means un que pa t c pants, mean ng that one pe son attend ng two classes th oughout the yea would be counted as one pa t c pant. "Cu culum" efe s to the po tfol o of t a n ng p og ams and t a n ng mate als offe ed by WE&T "El g ble ta get populat on" efe s to the ene gy eff c ency labo wo kfo ce w th n each PA's se v ce te to y based on the p opo t on of the IOU's te to y populat on compa ed to that of Cal fo n a's populat on.	
304	N/A	N/A	N/A	65%	60%	63%	65%	65%	65%	65%	65%	Repo t of p ov ded z p codes f om class eg st at on database c oss- efe enced w th the l st of d sadvantaged wo ke z p codes. Please note that these z p codes a e a m xtu e of home and wo k add esses. By the end of 2018, IOUs w ll spec f cally equest pa t c pants' home z p codes.	"D sadvantaged Wo ke " means a wo ke that (1) has a efe al f om a collabo at ng commun ty-based o gan zat on (CBO), state agency, o wo kfo ce nvestment boa d o (2) l ves n a ZIP code that s n the top 25% n one o mo e of the f ve soc oeconom c nd cato s as def ned n the Cal fo n a Off ce of Env onmental Hea th Haza d Assessment s Ca Env oSc een Tool. These soc oeconom c nd cato s a e educat onal atta nment, hous ng bu den, l ngu st c solat on, pove ty, and unemployment. Pa t c pant means a un que pa t c pant, mean ng that one pe son attend ng two classes th oughout the yea would be counted as one attendee.	
305	N/A	N/A	N/A	N/A	N/A	N/A	5%	5%	5%	15%	30%	D sadvantaged wo ke t ack ng s cu ently not equ ed by PA cont act te ms and cond t ons.	*Appl es only to p og ams that nstall, mod fy, epa , o ma nta n EE equ pment whe e the ncent ve s pa d to an ent ty othe than a manufactu e , d st buto , o eta le of equ pment. Th s appl cab l ty standa d s adopted f om the language the July 9th ul ng on wo kfo ce standa ds. It excludes cont acts such as those fo upst eam ncent ves, Codes and Standa ds, and m d-st eam d st buto p og ams. "Demonst ated comm tment" means that the vendo subm ts a plan desc b ng how the p og am w l p ov de d sadvantaged wo ke s w th mp oved access to ca ee oppo tun t es n the ene gy eff c ency ndust y, that they egula ly epo t the pe centage of the wo kfo ce qual fy ng as "d sadvantaged", and that they have long-te m ta gets fo the pe centage of the wo kfo ce qual fy ng as "d sadvantaged". See D sadvantaged wo ke above.	
306	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	CWR p og am does not yet ex st.	N/A	
307	N/A	N/A	N/A	N/A	N/A	N/A—TPMs w ll be n t ated once 3P mplentat on cont acts have been awa ded.	6 TPMs total*	tbd TPMs*	tbd TPMs*	TBD	TBD	Data fo th s met c w ll be gathe ed f om 3P TPM Implemente s annually.	1) Technology p o ty maps (TPMs) a e def ned n the Bus ness Plan 2) Technology-focused p lot See ETP-M7	
308	N/A	N/A	N/A	N/A	N/A	N/A—TPMs w ll be n t ated once 3P mplentat on cont acts have been awa ded.	3 TPMs total*	tbd TPMs*	tbd TPMs*	TBD	TBD	Data fo th s met c w ll be gathe ed f om 3P TPM Implemente s annually.	1) Technology p o ty maps (TPMs) a e def ned n the Bus ness Plan	
309	2017* To be updated w th ED/ OU Coo d nat o n	N/A	N/A	61 p ojects	53	47	61 p o ects total*	tbd p ojects*	tbd p ojects*	TBD	TBD	Data fo th s met c w ll be gathe ed f om 3P TPM Implemente s annually.	1) Technology p o ty maps (TPMs) a e def ned n the Bus ness Plan 2) P ojects a e cons de ed " n t ated" when p oject budget has been app oved and fund ng allocated.	
310	2017	N/A	N/A	5	5	6	5 events total*	tbd events*	tbd events*	TBD	TBD	Each ETP event w ll p ov de data fo ETP-M4 and ETP-M5 s multaneously.**Data fo th s met c w ll be gathe ed f om TPM Implemente s annua ly based on methodology to be dete m ned.	1) "Technology develope s" – Any o gan zat on o company that develops ene gy eff c ency and demand esponse technology su table fo nclus on n PA ncent ve p og ams 2) "Events" – ET Summ t, web na s, and n-pe son meet ngs, as p oposed by ETP mplemente s.	
311	See ETP-M4	N/A	N/A	See ETP-M4	See ETP-M4	See ETP-M4	See ETP M4	See ETP-M4	See ETP-M4	TBD	TBD	Each ETP event w ll p ov de data fo ETP-M4 and ETP-M5 s multaneously.**Data fo th s met c w ll be gathe ed f om 3P TPM Implemente s annually based on methodology to be dete m ned.	1) "Technology develope s" – Any o gan zat on o company that develops ene gy eff c ency and demand esponse technology su table fo nclus on n PA ncent ve p og ams. 2) "Events" – ET Summ t, web na s, and n-pe son meet ngs, as p oposed by ETP mplemente s.	
312	N/A	N/A	N/A	N/A	N/A	N/A—TFPs w ll beg n once 3P mplentat on cont acts have been awa ded.	2 total*	tbd*	tbd*	TBD	TBD	ETP-M6 met c s a subset of ETP-M7 and counted towa ds ETP-M7 ta gets. All ta gets w ll be dete m ned by 3P TPM mplemente s.	1) "Coope at on" s def ned as a p ocess by wh ch all pa t es wo k towa ds a mutual object ve.	
313	N/A	N/A	N/A	N/A	N/A	N/A—TFPs w ll beg n once 3P mplentat on cont acts have been awa ded.	3 total*	tbd*	tbd*	TBD	TBD	Data fo th s met c w ll be gathe ed f om 3P TPM Implemente s annually.	1) A technology-focused p lot (TFP) w ll dent fy ma ket ba e s fo a d ve se ange of h gh- mpact technolog es th ough stud es, and subsequently b eak ng down dent f ed ba e s n collabo at on w th othe elevant p og ams . 2) "Technology-focused P lot"- P lots that have been p oposed by 3Ps n esponse to PA needs and that have been app oved th ough the ex st ng ED Ideat on P ocess. These ncludes TFPs conducted n coope at on w th othe p og ams.	
314	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED Basel ne, methodology, and ta gets need to be dete m ned by ED evaluat on cont acto s. ED evaluato s can make ecommendat ons on what su table ta gets would be. ETP T ack ng Met cs 1 – 5 need to be dete m ned at the same t me as pa t of calculat ng sav ngs (ETP-T5), and because ETP mpact and sav ngs a e nvolved, ED evaluato s need to make these dete m nat ons. Basel nes w ll not be ava lable unt l then.	ETP-T1 th ough ETP -T8 a e n a table t tled "Eme g ng Technolog es T ack ng (Repo t ng)" and a e sepa ate f om the met cs ETP-M1 th ough ETP-M7 n the table t tled "Eme g ng Technolog es Met cs" n Attachment A of D.18-05-041. PAs had p oposed that t ack ng met cs have no ta gets n the July 14, 2017 met cs f l ng, howeve the comm ss on uled that these t ack ng met cs must have ta gets.	
315	Pe ED, to be dete m ned by an ED study*	N/A	N/A	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED Basel ne, methodology, and ta gets need to be dete m ned by ED evaluat on cont acto . ETP T ack ng Met cs 1 – 5 need to be dete m ned at the same t me as pa t of calculat ng sav ngs (ETP-T5), and because ETP mpact and sav ngs a e nvolved, ED evaluato s need to make these dete m nat ons. Basel nes w ll not be ava lable unt l then.	ETP-T1 th ough ETP -T8 a e n a table t tled "Eme g ng Technolog es T ack ng (Repo t ng)" and a e sepa ate f om the met cs ETP-M1 th ough ETP-M7 n the table t tled "Eme g ng Technolog es Met cs" n Attachment A of D.18-05-041. PAs had p oposed that t ack ng met cs have no ta gets n the July 14, 2017 met cs f l ng, howeve the comm ss on uled that these t ack ng met cs must have ta gets.	
316	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED Basel ne, methodology, and ta gets need to be dete m ned by ED evaluat on cont acto .	ETP-T1 th ough ETP -T8 a e n a table t tled "Eme g ng Technolog es T ack ng (Repo t ng)" and a e sepa ate f om the met cs ETP-M1 th ough ETP-M7 n the table t tled "Eme g ng Technolog es Met cs" n Attachment A of D.18-05-041. PAs had p oposed that t ack ng met cs have no ta gets n the July 14, 2017 met cs f l ng, howeve the comm ss on uled that these t ack ng met cs must have ta gets.	

Spreadsh eet Index	PA	AttA Page	AttA Order	Method Code	Units of Measurement	Metric Type	Metr c/ Ind cator	Business Plan Att A Descript on	Metric	Sector	Baseline Year	Baseline Numerator	Baseline Denominator	Actual 2016	Actual 2017	Actual 2018	Short Term Target 2018	Short Term Target 2019	Short Term Target 2020	M d Term Target (2021-2023) Cumulative	Long Term Target (2024-2025) Cumulative	Methodology	Key Defin tions	Proxy Explanat on
317	SCG	A15	ETP-T4	1	Count	Measu e T ac ng	Met c	ETP-T4 P o Yea # of new codes and standa ds that we e p ev ously ETP technolog es. *The PAs bel eve th s s not su ted fo a met c w th ta gets because ETP does not make dec s ons about new codes o standa ds.	ETP-T4 P o Yea # of new codes and standa ds that we e p ev ously ETP technolog es	Eme g ng Technolog es (ET)	Pe ED, to be dete m ned by an ED study*	N/A	N/A	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED Basel ne, methodology, and ta gets need to be dete m ned by ED evaluat on cont acto . ETP T ack ng Met cs 1 – 5 need to be dete m ned at the same t me as pa t of calculat ng sav ngs (ETP-T5), and because ETP mpact and sav ngs a e nvolved, ED evaluato s need to make these dete m nat ons. Basel nes w l not be ava lable unt l then. PAs w ll wo k w th ED to suppo t match ng ETP content to po tfol o content.	ETP-T1 th ough ETP-T8 a e n a table t tled "Eme g ng Technolog es T ack ng (Repo t ng)" and a e sepa ate f om the met cs ETP-M1 th ough ETP-M7 n the table t tled "Eme g ng Technolog es Met cs" n Attachment A of D.18-05-041. PAs had p oposed that t ack ng met cs have no ta gets n the July 14, 2017 met cs f l ng, howeve the comm ss on ulled that these t ack ng met cs must have ta gets.	
318	SCG	A15	ETP-T5a	1	L fecycle net kW	Sav ngs T ac ng	Met c	ETP-T5a Sav ngs of measu es cu ently n the po tfol o that we e suppo ted by ETP, added s nce 2009. Ex-ante w th g oss and net fo all measu es, w th ex-post whe e ava lable. *The PAs bel eve th s s not su ted fo a met c w th ta gets because ETP s a non- esou ce p og am and does not cla m any sav ngs.	ETP-T5a Sav ngs of measu es cu ently n the po tfol o that we e suppo ted by ETP, added s nce 2009. Ex-ante w th g oss and net fo all measu es, w th ex-post whe e ava lable	Eme g ng Technolog es (ET)	Pe ED, to be dete m ned by an ED study*	N/A	N/A	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED Basel ne, methodology, and ta gets need to be dete m ned by ED evaluat on cont acto . ETP T ack ng Met cs 1 – 5 need to be dete m ned at the same t me as pa t of calculat ng sav ngs (ETP-T5), and because ETP mpact and sav ngs a e nvolved, ED evaluato s need to make these dete m nat ons. Basel nes w l not be ava lable unt l then.	ETP-T1 th ough ETP-T8 a e n a table t tled "Eme g ng Technolog es T ack ng (Repo t ng)" and a e sepa ate f om the met cs ETP-M1 th ough ETP-M7 n the table t tled "Eme g ng Technolog es Met cs" n Attachment A of D.18-05-041. PAs had p oposed that t ack ng met cs have no ta gets n the July 14, 2017 met cs f l ng, howeve the comm ss on ulled that these t ack ng met cs must have ta gets.	
319	SCG	A15	ETP-T5b	1	L fecycle net kWh	Sav ngs T ac ng	Met c	ETP-T5b Sav ngs of measu es cu ently n the po tfol o that we e suppo ted by ETP, added s nce 2009. Ex-ante w th g oss and net fo all measu es, w th ex-post whe e ava lable. *The PAs bel eve th s s not su ted fo a met c w th ta gets because ETP s a non- esou ce p og am and does not cla m any sav ngs.	ETP-T5b Sav ngs of measu es cu ently n the po tfol o that we e suppo ted by ETP, added s nce 2009. Ex-ante w th g oss and net fo all measu es, w th ex-post whe e ava lable	Eme g ng Technolog es (ET)	Pe ED, to be dete m ned by an ED study*	N/A	N/A	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED Basel ne, methodology, and ta gets need to be dete m ned by ED evaluat on cont acto . ETP T ack ng Met cs 1 – 5 need to be dete m ned at the same t me as pa t of calculat ng sav ngs (ETP-T5), and because ETP mpact and sav ngs a e nvolved, ED evaluato s need to make these dete m nat ons. Basel nes w l not be ava lable unt l then.	ETP-T1 th ough ETP-T8 a e n a table t tled "Eme g ng Technolog es T ack ng (Repo t ng)" and a e sepa ate f om the met cs ETP-M1 th ough ETP-M7 n the table t tled "Eme g ng Technolog es Met cs" n Attachment A of D.18-05-041. PAs had p oposed that t ack ng met cs have no ta gets n the July 14, 2017 met cs f l ng, howeve the comm ss on ulled that these t ack ng met cs must have ta gets. ETP s a non- esou ce p og am and does not make sav ngs cla ms.	
320	SCG	A15	ETP-T5c	1	L fecycle net The ms	Sav ngs T ac ng	Met c	ETP-T5c Sav ngs of measu es cu ently n the po tfol o that we e suppo ted by ETP, added s nce 2009. Ex-ante w th g oss and net fo all measu es, w th ex-post whe e ava lable. *The PAs bel eve th s s not su ted fo a met c w th ta gets because ETP s a non- esou ce p og am and does not cla m any sav ngs.	ETP-T5c Sav ngs of measu es cu ently n the po tfol o that we e suppo ted by ETP, added s nce 2009. Ex-ante w th g oss and net fo all measu es, w th ex-post whe e ava lable	Eme g ng Technolog es (ET)	Pe ED, to be dete m ned by an ED study*	N/A	N/A	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED, to be dete m ned by an ED study*	Pe ED Basel ne, methodology, and ta gets need to be dete m ned by ED evaluat on cont acto . ETP T ack ng Met cs 1 – 5 need to be dete m ned at the same t me as pa t of calculat ng sav ngs (ETP-T5), and because ETP mpact and sav ngs a e nvolved, ED evaluato s need to make these dete m nat ons. Basel nes w l not be ava lable unt l then.	ETP-T1 th ough ETP-T8 a e n a table t tled "Eme g ng Technolog es T ack ng (Repo t ng)" and a e sepa ate f om the met cs ETP-M1 th ough ETP-M7 n the table t tled "Eme g ng Technolog es Met cs" n Attachment A of D.18-05-041. PAs had p oposed that t ack ng met cs have no ta gets n the July 14, 2017 met cs f l ng, howeve the comm ss on ulled that these t ack ng met cs must have ta gets. ETP s a non- esou ce p og am and does not make sav ngs cla ms.	
321	SCG	A15	ETP-T6a	1	Count of p oject deas by PA	P oject Idea T ac ng	Met c	ETP-T6a Numbe and sou ce (as epo ted by subm tte) of p oject deas subm tted OUTSIDE of the annual TPM esea ch plann ng p ocess, fo these catego es of sou ces PA, nat onal lab, manufactu e , ent ep eneu , etc) *The PAs bel eve th s s not su ted fo a met c w th ta gets because ETP does not cont ol the numbe of subm ss ons no the sou ces. Ta gets a e set n a way to avo d fo c ng ETP to a b t a ly change ex st ng p ocesses n a way that may negat vely mpact the e fect veness of the p og am. Ta gets and sou ces may be updated n collabo at on w th ED afte all 3P cont acts a e ewa ded.	ETP-T6a Numbe and sou ce (as epo ted by subm tte) of p oject deas subm tted OUTSIDE Of the annual TPM esea ch plann ng p ocess by PA	Eme g ng Technolog es (ET)	N/A	N/A	N/A	N/A	N/A—TPMs w ll be n t ated once 3P mplentat on cont acts have been awa ded.	4 cumulat ve	TBD	TBD	TBD	TBD Data fo th s met c w l be gathe ed f om 3P TPM Implemente s annually. If deas a e subm tted both outs de and as pa t of the TPM-al gned esea ch plann ng p ocess, t can be epo ted unde both ETP-T6 and ETP-T7. Ideas may be subm tted by mo e than one sou ce and w l be counted unde each.	ETP-T1 th ough ETP-T8 a e n a table t tled "Eme g ng Technolog es T ack ng (Repo t ng)" and a e sepa ate f om the met cs ETP-M1 th ough ETP-M7 n the table t tled "Eme g ng Technolog es Met cs" n Attachment A of D.18-05-041. PAs had p oposed that t ack ng met cs have no ta gets n the July 14, 2017 met cs f l ng, howeve the comm ss on ulled that these t ack ng met cs must have ta gets. Subm tted efe s to an dess subm tted th ough a fo mal subm ss on p ocess.	
322	SCG	A15	ETP-T6b	1	Count of p oject deas by nat onal labs	P oject Idea T ac ng	Met c	ETP-T6b Numbe and sou ce (as epo ted by subm tte) of p oject deas subm tted OUTSIDE of the annual TPM esea ch plann ng p ocess, fo these catego es of sou ces PA, nat onal lab, manufactu e , ent ep eneu , etc.) *The PAs bel eve th s s not su ted fo a met c w th ta gets because ETP does not cont ol the numbe of subm ss ons no the sou ces. Ta gets a e set n a way to avo d fo c ng ETP to a b t a ly change ex st ng p ocesses n a way that may negat vely mpact the e fect veness of the p og am. Ta gets and sou ces may be updated n collabo at on w th ED afte all 3P cont acts a e ewa ded.	ETP-T6b Numbe and sou ce (as epo ted by subm tte) of p oject deas subm tted OUTSIDE Of the annual TPM esea ch plann ng p ocess by Nat onal Lab	Eme g ng Technolog es (ET)	N/A	N/A	N/A	N/A	N/A—TPMs w ll be n t ated once 3P mplentat on cont acts have been awa ded.	2 cumulat ve	TBD	TBD	TBD	TBD Data fo th s met c w l be gathe ed f om 3P TPM Implemente s annually. If deas a e subm tted both outs de and as pa t of the TPM-al gned esea ch plann ng p ocess, t can be epo ted unde both ETP-T6 and ETP-T7. Ideas may be subm tted by mo e than one sou ce and w l be counted unde each.	ETP-T1 th ough ETP-T8 a e n a table t tled "Eme g ng Technolog es T ack ng (Repo t ng)" and a e sepa ate f om the met cs ETP-M1 th ough ETP-M7 n the table t tled "Eme g ng Technolog es Met cs" n Attachment A of D.18-05-041. PAs had p oposed that t ack ng met cs have no ta gets n the July 14, 2017 met cs f l ng, howeve the comm ss on ulled that these t ack ng met cs must have ta gets. Subm tted efe s to an dess subm tted th ough a fo mal subm ss on p ocess.	
323	SCG	A15	ETP-T6c	1	Count of p oject deas by manufactu e s	P oject Idea T ac ng	Met c	ETP-T6c Numbe and sou ce (as epo ted by subm tte) of p oject deas subm tted OUTSIDE of the annual TPM esea ch plann ng p ocess, fo these catego es of sou ces PA, nat onal lab, manufacturer, ent ep eneu , etc) *The PAs bel eve th s s not su ted fo a met c w th ta gets because ETP does not cont ol the numbe of subm ss ons no the sou ces. Ta gets a e set n a way to avo d fo c ng ETP to a b t a ly change ex st ng p ocesses n a way that may negat vely mpact the effect veness of the p og am. Ta gets and sou ces may be updated n collabo at on w th ED afte all 3P cont acts a e ewa ded.	ETP-T6c Numbe and sou ce (as epo ted by subm tte) of p oject deas subm tted OUTSIDE Of the annual TPM esea ch plann ng p ocess by Manufactu e	Eme g ng Technolog es (ET)	N/A	N/A	N/A	N/A	N/A—TPMs w ll be n t ated once 3P mplentat on cont acts have been awa ded.	2 cumulat ve	TBD	TBD	TBD	TBD Data fo th s met c w l be gathe ed f om 3P TPM Implemente s annually. If deas a e subm tted both outs de and as pa t of the TPM-al gned esea ch plann ng p ocess, t can be epo ted unde both ETP-T6 and ETP-T7. Ideas may be subm tted by mo e than one sou ce and w l be counted unde each.	ETP-T1 th ough ETP-T8 a e n a table t tled "Eme g ng Technolog es T ack ng (Repo t ng)" and a e sepa ate f om the met cs ETP-M1 th ough ETP-M7 n the table t tled "Eme g ng Technolog es Met cs" n Attachment A of D.18-05-041. PAs had p oposed that t ack ng met cs have no ta gets n the July 14, 2017 met cs f l ng, howeve the comm ss on ulled that these t ack ng met cs must have ta gets. Subm tted efe s to an dess subm tted th ough a fo mal subm ss on p ocess.	
324	SCG	A15	ETP-T6d	1	Count of p oject deas by ent ep eneu s	P oject Idea T ac ng	Met c	ETP-T6d Numbe and sou ce (as epo ted by subm tte) of p oject deas subm tted OUTSIDE of the annual TPM esea ch plann ng p ocess, fo these catego es of sou ces PA, nat onal lab, manufactu e , **entrepreneur**, etc.) *The PAs bel eve th s s not su ted fo a met c w th ta gets because ETP does not cont ol the numbe of subm ss ons no the sou ces. Ta gets a e set n a way to avo d fo c ng ETP to a b t a ly change ex st ng p ocesses n a way that may negat vely mpact the e fect veness of the p og am. Ta gets and sou ces may be updated n collabo at on w th ED afte all 3P cont acts a e ewa ded.	ETP-T6d Numbe and sou ce (as epo ted by subm tte) of p oject deas subm tted OUTSIDE Of the annual TPM esea ch plann ng p ocess by Ent ep eneu	Eme g ng Technolog es (ET)	N/A	N/A	N/A	N/A	N/A—TPMs w ll be n t ated once 3P mplentat on cont acts have been awa ded.	1 cumulat ve	tbd*	tbd*	TBD	TBD Data fo th s met c w l be gathe ed f om 3P TPM Implemente s annually. If deas a e subm tted both outs de and as pa t of the TPM-al gned esea ch plann ng p ocess, t can be epo ted unde both ETP-T6 and ETP-T7. Ideas may be subm tted by mo e than one sou ce and w l be counted unde each.	ETP-T1 th ough ETP-T8 a e n a table t tled "Eme g ng Technolog es T ack ng (Repo t ng)" and a e sepa ate f om the met cs ETP-M1 th ough ETP-M7 n the table t tled "Eme g ng Technolog es Met cs" n Attachment A of D.18-05-041. PAs had p oposed that t ack ng met cs have no ta gets n the July 14, 2017 met cs f l ng, howeve the comm ss on ulled that these t ack ng met cs must have ta gets. Subm tted efe s to an dess subm tted th ough a fo mal subm ss on p ocess.	
325	SCG	A15	ETP-T7a	1	Count of p oject deas by PA	P oject Idea T ac ng	Met c	ETP-T7a Numbe and sou ce (as epo ted by subm tte) of p oject deas subm tted AS PART OF the annual TPM esea ch plann ng p ocess, fo these catego es of sou ces PA, nat onal lab, manufactu e , ent ep eneu , etc) *The PAs bel eve th s s not su ted fo a met c w th ta gets because ETP does not cont ol the numbe of subm ss ons no the sou ces. Ta gets a e set n a way to avo d fo c ng ETP to a b t a ly change ex st ng p ocesses n a way that may negat vely mpact the e fect veness of the p og am. Ta gets and sou ces may be updated n collabo at on w th ED afte all 3P cont acts a e ewa ded.	ETP-T7a Numbe and sou ce (as epo ted by subm tte) of p oject deas subm tted AS PART OF the annual TPM esea ch plann ng p ocess by PA	Eme g ng Technolog es (ET)	N/A	N/A	N/A	N/A	N/A—TPMs w ll be n t ated once 3P mplentat on cont acts have been awa ded.	6 cumulat ve	tbd*	tbd*	TBD	TBD Data fo th s met c w l be gathe ed f om 3P TPM Implemente s. If deas a e subm tted both outs de and as pa t of the TPM-al gned esea ch plann ng p ocess, t can be epo ted unde both ETP-T6 and ETP-T7. Ideas may be subm tted by mo e than one sou ce and w ll be counted unde each.	ETP-T1 th ough ETP-T8 a e n a table t tled "Eme g ng Technolog es T ack ng (Repo t ng)" and a e sepa ate f om the met cs ETP-M1 th ough ETP-M7 n the table t tled "Eme g ng Technolog es Met cs" n Attachment A of D.18-05-041. PAs had p oposed that t ack ng met cs have no ta gets n the July 14, 2017 met cs f l ng, howeve the comm ss on ulled that these t ack ng met cs must have ta gets. Subm tted efe s to an dess subm tted th ough a fo mal subm ss on p ocess.	
326	SCG	A15	ETP-T7b	1	Count of p oject deas by nat onal labs	P oject Idea T ac ng	Met c	ETP-T7b Numbe and sou ce (as epo ted by subm tte) of p oject deas subm tted AS PART OF the annual TPM esea ch plann ng p ocess, fo these catego es of sou ces PA, nat onal lab, manufactu e , ent ep eneu , etc.) *The PAs bel eve th s s not su ted fo a met c w th ta gets because ETP does not cont ol the numbe of subm ss ons no the sou ces. Ta gets a e set n a way to avo d fo c ng ETP to a b t a ly change ex st ng p ocesses n a way that may negat vely mpact the effect veness of the p og am. Ta gets and sou ces may be updated n collabo at on w th ED afte all 3P cont acts a e ewa ded.	ETP-T7b Numbe and sou ce (as epo ted by subm tte) of p oject deas subm tted AS PART OF the annual TPM esea ch plann ng p ocess by Nat onal Lab	Eme g ng Technolog es (ET)	N/A	N/A	N/A	N/A	N/A—TPMs w ll be n t ated once 3P mplentat on cont acts have been awa ded.	2 cumulat ve	tbd*	tbd*	TBD	TBD Data fo th s met c w l be gathe ed f om 3P TPM Implemente s. If deas a e subm tted both outs de and as pa t of the TPM-al gned esea ch plann ng p ocess, t can be epo ted unde both ETP-T6 and ETP-T7. Ideas may be subm tted by mo e than one sou ce and w ll be counted unde each.	ETP-T1 th ough ETP-T8 a e n a table t tled "Eme g ng Technolog es T ack ng (Repo t ng)" and a e sepa ate f om the met cs ETP-M1 th ough ETP-M7 n the table t tled "Eme g ng Technolog es Met cs" n Attachment A of D.18-05-041. PAs had p oposed that t ack ng met cs have no ta gets n the July 14, 2017 met cs f l ng, howeve the comm ss on ulled that these t ack ng met cs must have ta gets. Subm tted efe s to an dess subm tted th ough a fo mal subm ss on p ocess.	

Spreadsh eet Index	PA	AttA Page	AttA Order	Method Code	Units of Measurement	Metric Type	Metr c/ Ind cator	Business Plan Att A Descript on	Metric	Sector	Baseline Year	Baseline Numerator	Baseline Denominator	Actual 2016	Actual 2017	Actual 2018	Short Term Target 2018	Short Term Target 2019	Short Term Target 2020	M d Term Target (2021-2023) Cumulative	Long Term Target (2024-2025) Cumulative	Methodology	Key Defin tions	Proxy Explanat on
327	SCG	A15	ETP-T7c	1	Count of p oject deas by manufactu e s	P oject Idea T ac ng	Met c	ETP-T7c Numbe and sou ce (as epo ted by subm tte) of p oject deas subm tted AS PART OF the annual TPM esea ch plann ng p ocess, fo these catego es of sou ces PA, nat onal lab, manufacturer, ent ep eneu , etc) *The PAs bel eve th s s not su ted fo a met c w th ta gets because ETP does not cont ol the numbe of subm ss ons no the sou ces. Ta gets a e set n a way to avo d fo c ng ETP to a b t a ly change ex st ng p ocesses n a way that may negat vely mpact the e fect veness of the p og am. Ta gets and sou ces may be updated n collabo at on w th ED afte all 3P cont acts a e awa ded.	ETP-T7c Numbe and sou ce (as epo ted by subm tte) of p oject deas subm tted AS PART OF the annual TPM esea ch plann ng p ocess by Manufactu e	Eme g ng Technolog es (ET)	N/A	N/A	N/A	N/A	N/A	N/A—TPMs w ll be n t ated once 3P mplentat on cont acts have been awa ded.	2 cumulat ve	TBD	TBD	TBD	TBD	Data fo th s met c w l be gathe ed f om 3P TPM Implemente s. If deas a e subm tted both outs de and as pa t of the TPM-al gned esea ch plann ng p ocess, t can be epo ted unde both ETP-T6 and ETP-T7. Ideas may be subm tted by mo e than one sou ce and w ll be counted unde each.	ETP-T1 th ough ETP-T8 a e n a table t tled "Eme g ng Technolog es T ack ng (Repo t ng)" and a e sepa ate f om the met cs ETP-M1 th ough ETP-M7 n the table t tled "Eme g ng Technolog es Met cs" n Attachment A of D.18-05-041. PAs had p oposed that t ack ng met cs have no ta gets n the July 14, 2017 met cs f l ng, howeve the comm ss on uled that these t ack ng met cs must have ta gets. Subm tted efe s to an deas subm tted th ough a fo mal subm ss on p ocess.	
328	SCG	A15	ETP-T7d	1	Count of p oject deas by ent ep eneu s	P oject Idea T ac ng	Met c	ETP-T7d Numbe and sou ce (as epo ted by subm tte) of p oject deas subm tted AS PART OF the annual TPM esea ch plann ng p ocess, fo these catego es of sou ces PA, nat onal lab, manufactu e , entrepreneur, etc.) *The PAs bel eve th s s not su ted fo a met c w th ta gets because ETP does not cont ol the numbe of subm ss ons no the sou ces. Ta gets a e set n a way to avo d fo c ng ETP to a b t a ly change ex st ng p ocesses n a way that may negat vely mpact the effect veness of the p og am. Ta gets and sou ces may be updated n collabo at on w th ED afte all 3P cont acts a e awa ded.	ETP-T7d Numbe and sou ce (as epo ted by subm tte) of p oject deas subm tted AS PART OF the annual TPM esea ch plann ng p ocess by Ent ep eneu	Eme g ng Technolog es (ET)	N/A	N/A	N/A	N/A	N/A	N/A—TPMs w ll be n t ated once 3P mplentat on cont acts have been awa ded.	1 cumulat ve	TBD	TBD	TBD	TBD	Data fo th s met c w l be gathe ed f om 3P TPM Implemente s. If deas a e subm tted both outs de and as pa t of the TPM-al gned esea ch plann ng p ocess, t can be epo ted unde both ETP-T6 and ETP-T7. Ideas may be subm tted by mo e than one sou ce and w ll be counted unde each.	ETP-T1 th ough ETP-T8 a e n a table t tled "Eme g ng Technolog es T ack ng (Repo t ng)" and a e sepa ate f om the met cs ETP-M1 th ough ETP-M7 n the table t tled "Eme g ng Technolog es Met cs" n Attachment A of D.18-05-041. PAs had p oposed that t ack ng met cs have no ta gets n the July 14, 2017 met cs f l ng, howeve the comm ss on uled that these t ack ng met cs must have ta gets. Subm tted efe s to an deas subm tted th ough a fo mal subm ss on p ocess.	
329	SCG	A16	ETP-T8	1	Numbe of l sts	Statew de Goal Al gnment	Met c	ETP-T8 L st of ETP p ojects al gned w th statew de goals that we e n t ated n the epo t ng yea w th spec f c ty as to what aspect of each goal t s fulf ll ng. Goals w ll also be labeled n the ETP database. A l st of el g ble goals w l be developed co labo at vely w th ED.	ETP-T8 L st of ETP p o ects al gned w th statew de goals that we e n t ated n the epo t ng yea w th spec f c ty as to what aspect of each goal t s fulf ll ng	Eme g ng Technolog es (ET)	N/A	N/A	N/A	N/A	N/A	N/A - The statew de goals to be t acked a e st l unde collabo at ve d scuss on w th ED and not yet ava lable hence, no data w ll be epo ted fo 2018	3 l sts cumulat ve	3 l sts cumulat ve	2 l sts cumulat ve	TBD	TBD	Data fo th s met c w l be gathe ed f om 3P TPM Implemente s. An ETP p o ect may al gn w th mult ple statew de goals and w l be l sted unde each goal. **	ETP-T1 th ough ETP-T8 a e n a table t tled "Eme g ng Technolog es T ack ng (Repo t ng)" and a e sepa ate f om the met cs ETP-M1 th ough ETP-M7 n the table t tled "Eme g ng Technolog es Met cs" n Attachment A of D.18-05-041. PAs had p oposed that t ack ng met cs have no ta gets n the July 14, 2017 met cs f l ng, howeve the comm ss on uled that these t ack ng met cs must have ta gets. The "statew de goals" w l be t acked w ll be developed and updated n collabo at on w th ED as needed. P ojects a e cons de ed " n t ated" when p oject budget has been app oved and fund ng allocated.	

Southern California Gas

EE Sector Metrics with Targets - Definitions

	Term	Definition
1	Bill Account	A bill account is a system generated number that uniquely identifies a billable entity
2	Eligible Population	Total number of bill accounts in sector/segment
3	Disadvantaged Communities	D.18-05-041: DAC = Bill accounts in census tracts corresponding to census tracts in the top quartile of CalEnviroScreen 3.0 scores.
4	Hard-to-Reach	D p. 43 - Resolution G-3497, modified to "include disadvantaged communities (as designated by CalEPA) in the geographic criteria for hard to reach customers." with modification. Geographically, SoCalGas' hard-to-reach areas are disadvantaged communities other than the Greater Los Angeles Area (Los Angeles, Orange, San Bernardino, Riverside, and Ventura counties)
5	MT CO2eq	Conversion of kWh and Therms to MTCO2eq as reported by CEDARS
6	Levelized Cost	PAC and TRC cost (excluding C&S), as output from the CET Tool
7	Residential Single Family	Bill account on residential (GR) rates, with dwelling code of single family home or single family dwelling.
8	Participant	Identified by a bill account number, midsteam and upstream equipment deliveries who participanted in a ratepayer funded energy efficiency intervention
9	Household	Residential bill account
10	Opt-In/Opt-Out Program	Opt-in programs are voluntary and participation is at the discretion of the individual and/or entity. Opt-out programs are those where individuals and/or entities are defaulted into with their option to opt-out. Opower/HER is the only Opt-Out program.
11	Residential Multifamily	MF designation based on dwelling codes in bill accounts. Number of units = 2 or more.
12	Project	Energy efficiency efforts where the customer financial incentives and energy savings are determined using a site-specific analysis of the customer's existing and proposed equipment and/or building components
13	Building	Per the residential sector, any MF structure used or intended to support or shelter any use or occupancy, that receives energy from a utility
14	Property	Per the residential sector, a property is a single residence stand-alone or inside a MF building that receives energy from a utility
15	Energy Savings per Square Foot (depth of intervention)	Sq footage of EE-addressed space, as defined by individual implementation plans
16	In Unit	A multi-family unit. Designated by a unique billing account under rate GR and location code (LC_CD) = B, C, D (>= 2 units)
17	Common Area	AL 3826. Natural gas supplied through a single meter to common facilities only, will be billed under rates GM-C, GM-BC or GM-BCC, as appropriate.
18	Master Metered	AL 3826. Natural gas procurement for MF accomodations supply Baseline uses through one meter. Such as service will be billed under rates designated for GM-E, GM-BE or GM-BEC, as appropriate.
19	Unit	Bill accounts within MF property. Non-overlapping with Master Metered.
20	Square Feet of Eligible Population (Residential)	Esimated from RASS, averaging 935 sq. ft. for an invidual multi-family unit; 1,000 sq. ft./per unit per multi-family building.
21	Square Feet of Eligible Population (Commercial & Public)	From Commercial Saturation Study (CalmacID CPU0077.01). SoCalGas assigns estimated average indoor square foot for each of the 2-digit NAICS codes per account and per eligible population.
22	Public Sector	Per SDG&E BP application (p. 102), "the public sector came to be defined as the group of customers that are tax-payer funded, have political mandates, and that must go through a public budgeting and decision-making process." Local Gov't: Cities, Counties, Special Districts, Solid Waste Facilities, Water / Wastewater Facilities, Hospitals, Correctional Facilities. State: State Buildings, State Park Facilities, Hospitals, Correctional Facilities. Federal: Federal Buildings, US Postal Service, Hospitals, Ports, Military Bases. Native American Tribes Public Education (double check): K-12 Schools (Schools, Admin Buildings), Higher Education (e.g., UC/CSU), community colleges Special exceptions on a case by case basis, determined by PAs based on customer of record.
23	Facility	A structure or collection of structures, covered or uncovered, that typically encompass processing or production capabilities
24	Project Building Floor Plan Area	Sq footage of EE-addressed space, as defined by individual implementation plans
25	Program-Backed Financing	Loan amount
26	Water/Waste Water Facility	A structure or collection of structures, covered or uncovered, that encompass water/waste water treatment processes. EE savings are intended to be captured at the facility level.
27	Annual Flow	Flow (in millions of gallons per day) of water/wastewater as reported by the water/waste water facility
28	Current Benchmark	Benchmarked via Portfolio Manager in the calendar year
29	Investments made by ratepayers and private capital	Project incentive vs project cost
30	Customer Satisfaction	Per consistent survey, to be developed
31	Trade Ally Satisfaction	Per consistent survey, to be developed
32	Customer Size - Small	A bill account with < 10,000 therms per year
33	Customer Size - Medium	A bill account between 10,000 and 50,000 therms per yea
34	Customer Size - Large	A bill account with > 50,000 therms per year
35	Energy Use Intensity	kBTU/sq ft, consistent with Energy Star Portfolio Manager definition (https://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/use-portfolio-manager/understand metrics/what-energy)

Inputs and Calculations
By Sectors

Portfolio - All Sectors

SoCalGas

SoCalGas Portfolio Level (PL) - All Sectors

Metric Type	Final Common Metric or Indicator	Index	2016	2017	2018
S1: Energy Savings	**First Year Annual and Lifecycle ExAnte(Pre-Evaluation) Gas, Electric, and Demand Savings (Gross and Net) for the**				
	Gross Therm for Portfolio Level	5	38,456,156	39,877,543	57,831,463
	Net Therm for Portfolio Level	6	32,419,727	35,991,671	51,784,797
	Gross LifeCycle Therm for Portfolio Level	11	480,467,409	522,106,297	604,191,232
	Net LifeCycle Therm Portfolio Level	12	422,174,997	475,290,840	545,145,756
S3: DAC Savings	**First Year Annual and Lifecycle ExAnte(Pre-Evaluation) Gas, Electric, and Demand Savings (Gross and Net) in Disadvantages Communities**				
	Gross Therm for DAC	17	4,336,520	2,496,127	14,281,205
	Net Therm for DAC	18	2,665,824	1,580,862	11,506,144
	Gross LifeCycle Therm for DAC	23	56,204,869	28,735,742	75,508,724
	Net LifeCycle Therm for DAC	24	33,996,508	17,940,391	50,636,473
S4: Hard to reach markets	**First Year Annual and Lifecycle ExAnte(Pre-Evaluation) Gas, Electric, and Demand Savings(Gross and Net) in Hard-to-Reach Markets**				
	Gross Therm for HTR	29	5,427,644	4,382,279	15,684,662
	Net Therm for HTR	30	3,331,000	2,781,629	12,468,382
	Gross LifeCycle Therm for HTR	35	66,223,534	46,307,998	86,159,058
	Net LifeCycle Therm for HTR	36	40,097,051	28,839,247	57,871,676
Cost per unit saved	**Levelized Cost of Energy Efficiency per Therm**				
	Levelized PAC Cost	42	0.43	0.42	0.51
	Levelized TRC Cost	39	0.71	0.64	0.62
GHG	**Greenhouse Gas (MT CO2) Savings, reported on an annual basis**				
	Gross Gas CO2 (Metric Tonne)	0	332,393	377,933	457,243

SoCalGas Portfolio Level (PL) - All Sectors

Metric Type	Final Common Metric or Indicator	Index	2016	2017	2018

**Overall Portofilio level therm savings include ESA and C&S 5%ME

**Overall portfolio savings = Res-sf, Res-mf, Com, Pub, AG, Ind and C&S; all these sectors include gross, net, lifecycle in the overall portfolio savings

**CO2 includes at the ClaimID Level, include C&S, ESA 5%

**OP2 & OP3 overall DAC and HTR savings include: all programs using Census Tract method + 3703 Program activity method which based on Zip Code to identify the DAC & HTR savings

**RW- ReportingWarehouse, EE Claim Database; CIS-Customer Information System; BA_ID (Service Account)

SoCalGas Portfolio Level (PL) - All Sectors

Metric Type	Final Common Metric or Indicator		Formula (Numerator/Denominator)	2016	2017	2018
S1: Energy Savings	**First Year Annual and Lifecycle ExAnte(Pre-Evaluation) Gas, Electric, and Demand Savings (Gross and Net) for the**					
	Gross Therm for Portfolio Level					
	Net Therm for Portfolio Level					
	Gross LifeCycle Therm for Portfolio Level					
	Net LifeCycle Therm Portfolio Level					
S3: DAC Savings	**First Year Annual and Lifecycle ExAnte(Pre-Evaluation) Gas, Electric, and Demand Savings (Gross and Net) in Disadvantages Communities**					
	Gross Therm for DAC					
	Net Therm for DAC					
	Gross LifeCycle Therm for DAC					
	Net LifeCycle Therm for DAC					
S4: Hard to reach markets	**First Year Annual and Lifecycle ExAnte(Pre-Evaluation) Gas, Electric, and Demand Savings(Gross and Net) in Hard-to-Reach Markets**					
	Gross Therm for HTR					
	Net Therm for HTR					
	Gross LifeCycle Therm for HTR					
	Net LifeCycle Therm for HTR					
Cost per unit saved	**Levelized Cost of Energy Efficiency per Therm**			*exclude C&S & ESA		
	Levelized PAC Cost	N	(PAC cost * Gas benefits)/Total Benefits	48,394,327	42,169,864	57,012,949
		D	LifeCycleNetTherm	111,920,132	100,131,032	111,617,010
				*exclude C&S & ESA		
	Levelized TRC Cost	N	(TRC cost * Gas benefits)/Total Benefits	79,173,600	63,796,722	69,266,275
		D	LifeCycleNetTherm	111,920,132	100,131,032	111,617,010
GHG	**Greenhouse Gas (MT CO2) Savings, reported on an annual ba**					
	Gross Gas CO2 (Metric Tonne)					

SoCalGas Portfolio Level (PL) - All Sectors

Metric Type	Final Common Metric or Indicator	Formula (Numerator/Denominator)	2016	2017	2018
**Overall Portofilio level therm savings include ESA and C&S 5%ME					
**Overall portfolio savings = Res-sf, Res-mf, Com, Pub, AG, Ind and C&S; all t in the overall portfolio savings					
**CO2 includes at the ClaimID Level, include C&S, ESA 5%					
**OP2 & OP3 overall DAC and HTR savings include: all programs using Censu method which based on Zip Code to identify the DAC & HTR savings					
**RW- ReportingWarehouse, EE Claim Database; CIS-Customer Information S					

Residential - Single Family

SoCalGas

SoCalGas Residential - Single Family (SF)

Metric Type	Final Common Metric or Indicator	Index	2016	2017	2018
S1: Energy Savings	**First Year Annual and Lifecycle ExAnte(Pre-Evaluation) Gas, Electric, and Demand Savings (Gross and Net) for Single Family Customers**				
	Gross Therm for SF	47	1,963,544	2,469,179	13,518,599
	Net Therm for SF	48	1,266,929	1,608,285	10,751,506
	Gross Therm LifeCycle for SF	53	25,538,464	30,293,953	68,232,268
	Net Therm LifeCycle for SF	54	16,610,078	18,746,836	44,266,452
GHG	**Greenhouse Gas (MT CO2) Savings, reported on an annual basis**				
	Gross Gas CO2	55	17,000	17,521	65,310
D1: Depth of Interventions	**Average Savings (Therms) per Participant in Opt-in Programs**				
	Net LifeCycle Average Savings - Downstream (Customers)	58	173	154	71
	Net LifeCycle Average Savings - Midstream (Customers)	61	64	48	32
	Net LifeCycle Average Savings - Opt-Out Programs	64	-	-	-
	Net LifeCycle Average Savings - Upstream (Customers)	67	843	751	1,422
P1: Penetration of energy efficiency programs in the eligible market	**Participation Relative to Eligible Population for SF sector**				
	Percent of participation relative to eligible population	68	2.8%	3.4%	16.5%
	Percent of participation in Disadvantaged Communities	69	4.6%	4.4%	52.7%
	Percent of participation in Hard to Reach Communities	70	3.9%	3.6%	39.8%

SoCalGas Residential - Single Family (SF)

Metric Type	Final Common Metric or Indicator	Index	2016	2017	2018
Cost per unit saved	**Levelized Cost of Energy Efficiency per Therm for Single Family**				
	Levelized PAC Cost	73	0.74	0.94	0.65
	Levelized TRC Cost	76	1.70	1.52	0.77

Energy Intensity Indicator	**Average Energy Use Intensity of Single Family Homes (Not adjusted)**				
	Annual usage for Single Family per household per KBtu/Sqft	IN	20	21	20

**For SF1- Single Family Therm Savings exclude missing BA_IDs for SF Customers (BA_ID level) because participant counts are based on the BA_ID(service account) level
**For SF1- Exclude Mobile Home for Res
**CO2 includes at the ClaimID Level
Numerator count of SF Participants:
**For SF3-1 (Downstream)-Count of Participants is not program by program activity; Count of Participant is using BA_IDs level; if an BA_ID account in two diferent programs, count as two participants.
**For SF3-1 (Midstream) POS -3703 - Count of Store's NumUnits (by Payee)
If BA_ID Account in two different programs, count as two participants
**GrossGasCO2 = GrossElecCO2 + GrossGasCO2
SF = 2,000 sqft
MF (individual) = 935 sqft
MF (building/unit) = 1,000 sqft

**For Midstream, 3703 - store portion of the 3703, use the Distributer's zipcodes. All of midstream is assigned to SF.

**Downstream program includes "DeliveryType" of DirInstall & PreRebDown
**Downstream program, use BA_ID to identify participants, HTR ad DAC. For Midstream programs(3703), us Distributor's Zip Codes of Equipment sold (NumOfUnits)
**RW- ReportingWarehouse, EE Claim Database; CIS-Customer Information System; BA_ID (Service Account)

SoCalGas Residential - Single Family (SF)

Metric Type	Final Common Metric or Indicator		Formula (Numerator/Denominator)	2016	2017	2018
S1: Energy Savings	**First Year Annual and Lifecycle ExAnte(Pre-Evaluation) Gas, Electric, and Demand Savings (Gross and Net) for Single Family Customers**					
	Gross Therm for SF					
	Net Therm for SF					
	Gross Therm LifeCycle for SF					
	Net Therm LifeCycle for SF					
GHG	**Greenhouse Gas (MT CO2) Savings, reported on an annual ba**					
	Gross Gas CO2					
D1: Depth of Interventions	**Average Savings (Therms) per Participant in Opt-in Programs**					
	Net LifeCycle Average Savings - Downstream (Customers)	N	Annualized LifeCycleTherm Net Saved (Downstream+DI of 3702	12,324,106	13,250,459	40,981,198
		D	# Participating SF Customers (Downstream+DI of 3702, Res-SF)	71,113	85,883	579,082
	Net LifeCycle Average Savings - Midstream (Customers)	N	Annualized LifeCycleTherm Net Saved by SF Midstream	1,851,854	1,581,875	1,099,879
		D	Number of participating SF Customers (Midstream)	29,126	32,665	34,850
	Net LifeCycle Average Savings - Opt-Out Programs	N	Annualized Opt-Out Savings	0	0	0
		D	# of Opt-Out Participants	0	0	0
	Net LifeCycle Average Savings - Upstream (Customers)	N	Annualized LifeCycleTherm Net Saved by SF Upstream	2,434,118	3,914,502	2,185,375
		D	Number of participating SF Customers (Upstream)	2,887	5,214	1,537
P1: Penetration of energy efficiency programs in the eligible market	**Participation Relative to Eligible Population for SF sector**					
	Percent of participation relative to eligible population	N	Participants (Upstream+Midstream+Downstream)	103,126	123,762	615,469
		D	December Total Number of SF Customers	3,664,679	3,683,082	3,723,006
	Percent of participation in Disadvantaged Communities	N	SF Program Participants in DAC (Downstream + DI BA_ID) + Midstream's Store Zip map to Census Tract)	42,475	41,011	490,663
		D	December Total Number of SF Customers in DAC	921,758	927,083	931,866
	Percent of participation in Hard to Reach Communities	N	SF Program Participants in HTR (Downstream + DI BA_ID) + Midstream's Store Zip map to Census Tract)	48,224	44,757	494,948
		D	December Total Number of SF Customers in HTR	1,228,475	1,235,556	1,242,692

SoCalGas Residential - Single Family (SF)

Metric Type	Final Common Metric or Indicator		Formula (Numerator/Denominator)	2016	2017	2018
Cost per unit saved	**Levelized Cost of Energy Efficiency per Therm for Single Famil**					
	Levelized PAC Cost	N	(PAC cost * Gas benefits)/Total Benefits	12 290 924	17 535 994	28 622 987
		D	LifeCycleNetTherm	16,610,078	18,746,836	44,266,452
	Levelized TRC Cost	N	(TRC cost * Gas benefits)/Total Benefits	28,281,745	28,552,112	34,208,366
		D	LifeCycleNetTherm	16,610,078	18,746,836	44,266,452
Energy Intensity Indicator	**Average Energy Use Intensity of Single Family Homes (Not adjusted)**					
	Annual usage for Single Family per household per KBtu/Sqft	N	Annual therm Usage for SF HH Accounts	1.50E+09	1.52E+09	1.50E+09
		D	Total Sqft SF Households	7.33E+09	7.37E+09	7.45E+09

**For SF1- Single Family Therm Savings exclude missing BA_IDs for SF Custor
counts are based on the BA_ID(service account) level
**For SF1- Exclude Mobile Home for Res
**CO2 includes at the ClaimID Level
Numerator count of SF Participants:
**For SF3-1 (Downstream)-Count of Participants is not program by program
BA_IDs level; if an BA_ID account in two diferent programs, count as two par
**For SF3-1 (Midstream) POS -3703 - Count of Store's NumUnits (by Payee)
If BA_ID Account in two different programs, count as two participants
**GrossGasCO2 = GrossElecCO2 + GrossGasCO2
SF = 2,000 sqft
MF (individual) = 935 sqft
MF (building/unit) = 1,000 sqft

**For Midstream, 3703 - store portion of the 3703, use the Distributer's zipc

**Downstream program includes "DeliveryType" of DirInstall & PreRebDowr
**Downstream program, use BA_ID to identify participants, HTR ad DAC. For
Distributor's Zip Codes of Equipment sold (NumOfUnits)
**RW- ReportingWarehouse, EE Claim Database; CIS-Customer Information S

Residential - Multi-Family

SoCalGas

SoCalGas Residential - Multi Family (MF)

Metric Type	Final Common Metric or Indicator	Index	2016	2017	2018
S1: Energy Savings	**First Year Annual and Lifecycle ExAnte(Pre-Evaluation) Gas, Electric, and Demand Savings (Gross and Net) for Multi-family customers (in units, common area, and master metered accounts)**				
	Gross Therm for MF (in Unit)	82	140,697	178,554	756,244
	Net Therm for MF (in Unit)	83	94,726	111,452	524,577
	Gross Therm for MF (Master Metered)	94	1,190,539	565,081	611,257
	Net Therm for MF (Master Metered)	95	834,669	361,725	432,951
	Gross Therm for MF (Common Area)	106	83,699	11,691	62,183
	Net Therm for MF (Common Area)	107	66,296	7,289	45,326
	Gross Therm LifeCycle for MF (in Unit)	88	1,682,187	2,293,520	7,457,870
	Net Therm LifeCycle for MF (in Unit)	89	1,574,918	1,720,311	5,090,666
	Gross Therm LifeCycle for MF (Master Metered)	100	10,899,317	3,975,876	5,377,179
	Net Therm LifeCycle for MF (Master Metered)	101	8,275,483	2,559,625	3,622,958
	Gross Therm LifeCycle for MF (Common Area)	112	977,601	76,523	619,092
	Net Therm LifeCycle for MF (Common Area)	113	819,327	47,844	447,057
GHG	**Greenhouse Gas (MT CO2) Savings, reported on an annual basis**				
	Gross Gas CO2	114	8,424	5,282	8,527
D4: Depth of Intervention	**Average Savings (Net LifeCycle Therms) for MF (per Participation, per Project(Building), per Sq.Ft)**				
	Net Energy Savings Per Participant (Property)	120	111	155	113
	Net Energy Savings Per Project (Building)	117	4,456	1,645	2,242
	Net Energy Savings Per Sq.Ft	123	0.29	0.15	0.15

SoCalGas Residential - Multi Family (MF)

Metric Type	Final Common Metric or Indicator	Index	2016	2017	2018
P1: Penetration of energy efficiency programs in the eligible marke	**Participant relative to eligible population**				
	Percent of participation relative to eligible population (by BA_II	125	0.8%	0.6%	2.6%
	Percent of participation relative to eligible population (by Building, Master Metered)	124	0.9%	0.68%	0.78%
	Percent square feet eligible population (by in unit)	126	0.8%	0.64%	2.59%
	Percent of participation in Disadvantaged Communities	127	0.50%	0.43%	1.95%
	Percent of participation in Hard to Reach Communities	128	0.49%	0.43%	1.78%
Cost per unit saved	**Levelized Cost Energy Efficiency per Therm for Multi Family**				
	Levelized PAC Cost	133	0.74	0.90	0.47
	Levelized TRC Cost	136	0.98	0.99	0.47
	Average Energy Use Intensity Multi Family Homes (not adjusted) in Kbtu/SqFt				
	[Indicator] - Average energy use intensity of multifamily units. including **in-unit** accounts - average usage per square foot –	137	21	21	21
	[Indicator] Average energy use intensity of multifamily **buildings** - average usage per square foot – not adjusted	138	9	9	10

SoCalGas Residential - Multi Family (MF)

Metric Type	Final Common Metric or Indicator	Index	2016	2017	2018
B1: MF Benchmarking	**Percent of benchmarked multi-family properties relative to the eligible population••••**				
	Percentage of Benchmarked multi-family properties relative to the eligible population	129	0.1%	0.2%	0.4%

B6: Benchmarking of HTR Properties	**Percent of benchmarking by properties defined as**				
	Percentage of Benchmarked properties defined as "hard-to-reach"	130	0.0001%	0.0001%	0.0003%

**For MF1- MF Therm Savings exclude missing BA_IDs for MF Customers (BA_ID level) because participant counts are based on the BA_ID(service account) level
**CO2 includes at the ClaimID Level
**Exclude for Res and Any for ESA. Include Mobile home for RES MF for 2018.
**For MF1, there are missing Gas Rate in Reporting System, supplement as GR; the remaining GM, and report savings only based on non missing info.
**For MF4-1, if POS, Retailers, Contractors with one BA_ID with mutliple tentant rebates, count the multiple tentants as one participant because it is one Gas Account in CIS. The MF participant is being counted in the BA_ID level, not
The MF participant is being counted in the BA_ID level, not those who benefits of the rebate level
**For MF3-2, the projects counts is at the JobID level with the non missing unique BA_ID
**GrossGasCO2 = GrossElecCO2 + GrossGasCO2
SF = 2,000 sqft
MF (individual) = 935 sqft
MF (building/unit) = 1,000 sqft
**RW- ReportingWarehouse, EE Claim Database; CIS-Customer Information System; BA_ID (Service Account)

GasRate	Explaination	Group
	Individual Metered Units (In Unit)	1
GN-10	Individual Metered Units (In Unit)	1
GR	Individual Metered Units (In Unit)	1
GRL	Individual Metered Units (In Unit)	1
GT-10	Individual Metered Units (In Unit)	1
GT-R	Individual Metered Units (In Unit)	1
GM-BE	Master Metered Account	2
GM-E	Master Metered Account	2
GS	Master Metered Account	2
GT-MBE	Master Metered Account	2
GT-ME	Master Metered Account	2
GT-S	Master Metered Account	2
GM-BEC	Common Facility Account (Common Area)	3
GM-C	Common Facility Account (Common Area)	3
GT-MC	Common Facility Account (Common Area)	3

SoCalGas Residential - Multi Family (MF)

Metric Type	Final Common Metric or Indicator	Formula (Numerator/Denominator)		2016	2017	2018
S1: Energy Savings	**First Year Annual and Lifecycle ExAnte(Pre-Evaluation) Gas, Electric, and Demand Savings (Gross and Net) for Multi-family customers (in units, common area, and master metered accounts)**					
	Gross Therm for MF (in Unit)					
	Net Therm for MF (in Unit)					
	Gross Therm for MF (Master Metered)					
	Net Therm for MF (Master Metered)					
	Gross Therm for MF (Common Area)					
	Net Therm for MF (Common Area)					
	Gross Therm LifeCycle for MF (in Unit)					
	Net Therm LifeCycle for MF (in Unit)					
	Gross Therm LifeCycle for MF (Master Metered)					
	Net Therm LifeCycle for MF (Master Metered)					
	Gross Therm LifeCycle for MF (Common Area)					
	Net Therm LifeCycle for MF (Common Area)					
GHG	**Greenhouse Gas (MT CO2) Savings, reported on an annual ba**					
	Gross Gas CO2					
D4: Depth of Intervention	**Average Savings (Net LifeCycle Therms) for MF (per Participation, per Project(Building), per Sq.Ft)**					
	Net Energy Savings Per Participant (Property)	N	Annualized LifeCycle Net Therm Saved by MF Participant	1,574,918	1,720,311	5,090,666
		D	Total Number MF Participants (GR)	14,251	11,134	45,102
	Net Energy Savings Per Project (Building)	N	Annualized LifeCycle Net Therm Saved by Building Participant	9 094 810	2 607 469	4 070 015
		D	Total Number Building Participants	2,041	1,585	1,815
	Net Energy Savings Per Sq.Ft	N	Annualized LifeCycle Net Therm Saved by MF Participant	10,669,728	4,327,780	9,160,681
		D	Total Number of participating MF In Total Sq.Ft	36,293,380	28,252,360	61,772,370

SoCalGas Residential - Multi Family (MF)

Metric Type	Final Common Metric or Indicator	Formula (Numerator/Denominator)		2016	2017	2018
P1: Penetration of energy efficiency programs in the eligible marke	**Participant relative to eligible population**					
	Percent of participation relative to eligible population (by BA_II	N	Number of MF Individual Participants	14,251	11,134	45,102
		D	December Total Number MF Accounts (In Unit, include GR)	1,719,803	1,728,151	1,742,359
	Percent of participation relative to eligible population (by Building, Master Metered)	N	Number of Building Participant	2,041	1,585	1,815
		D	December MF Properties	232,920	233,460	234,000
	Percent square feet eligible population (by in unit)	N	Number of in unit MF Participant (GR) (Sq.Ft)	13,324,292	10,410,627	42,170,370
		D	December Total Number of MF Accounts (Sq.Ft)	1.61E+09	1.62E+09	1.63E+09
	Percent of participation in Disadvantaged Communities	N	Number of MF Participants in DAC	3,044	2,628	11,809
		D	December Number of MF in DAC	609,633	612,213	606,777
	Percent of participation in Hard to Reach Communities	N	Number of MF Participants in HTR	3,383	2,945	12,217
		D	December Number of MF in HTR	687,806	691,034	685,861
Cost per unit saved	**Levelized Cost Energy Efficiency per Therm for Multi Family**					
	Levelized PAC Cost	N	(PAC cost * Gas benefits)/Total Benefits	7 504 969	3 631 465	4 297 972
		D	LifeCycleNetTherm	10,193,093	4,012,685	9,160,681
	Levelized TRC Cost	N	(TRC cost * Gas benefits)/Total Benefits	9 996 130	3 975 014	4 319 035
		D	LifeCycleNetTherm	10,193,093	4,012,685	9,160,681
	Average Energy Use Intensity Multi Family Homes (not adjusted) in Kbtu/SqFt					
	[Indicator] - Average energy use intensity of multifamily units. including **in-unit** accounts - average usage per square foot –	N	Annual therm Usage for MF HH Accounts	340 174 215	342 047 171	338 714 593
		D	Total Sqft of MF households	1.61E+09	1.62E+09	1.63E+09
	[Indicator] Average energy use intensity of multifamily **buildings** - average usage per square foot – not adjusted	N	Annual therm Usage for MF GM Accounts	220 294 920	219 931 185	256 267 281
		D	Total Sqft of MF GM buildings	2,515,536,000	2,521,368,000	2,527,200,000

SoCalGas Residential - Multi Family (MF)

Metric Type	Final Common Metric or Indicator		Formula (Numerator/Denominator)	2016	2017	2018
B1: MF Benchmarking	**Percent of benchmarked multi-family properties relative to the eligible population••••**					
	Percentage of Benchmarked multi-family properties relative to the eligible population	N	# MF accounts participated in Portfolio Manager	214	380	883
		D	# MF Buildings ~~> 5 units~~	232,920	233,460	234,000
B6: Benchmarking of HTR Properties	**Percent of benchmarking by properties defined as**					
	Percentage of Benchmarked properties defined as "hard-to-reach"	N	# MF accounts participanted in Portfolio Manager in HTR	76	127	337
		D	# MF Buildings in HTR	110,532	110,789	111,045

**For MF1- MF Therm Savings exclude missing BA_IDs for MF Customers (BA
are based on the BA_ID(service account) level
**CO2 includes at the ClaimID Level
**Exclude for Res and Any for ESA. Include Mobile home for RES MF for 201
**For MF1, there are missing Gas Rate in Reporting System, supplement as G
savings only based on non missing info.
**For MF4-1, if POS, Retailers, Contractors with one BA_ID with mutliple ten
as one participant because it is one Gas Account in CIS. The MF participant is
The MF participant is being counted in the BA_ID level, not those who bene
**For MF3-2, the projects counts is at the JobID level with the non missing u
**GrossGasCO2 = GrossElecCO2 + GrossGasCO2
SF = 2,000 sqft
MF (individual) = 935 sqft
MF (building/unit) = 1,000 sqft
**RW- ReportingWarehouse, EE Claim Database; CIS-Customer Information S

GasRate	Explaination
	Individual Metered Units (In Unit)
GN-10	Individual Metered Units (In Unit)
GR	Individual Metered Units (In Unit)
GRL	Individual Metered Units (In Unit)
GT-10	Individual Metered Units (In Unit)
GT-R	Individual Metered Units (In Unit)
GM-BE	Master Metered Account
GM-E	Master Metered Account
GS	Master Metered Account
GT-MBE	Master Metered Account
GT-ME	Master Metered Account
GT-S	Master Metered Account
GM-BEC	Common Facility Account (Common Area)
GM-C	Common Facility Account (Common Area)
GT-MC	Common Facility Account (Common Area)

Commercial

SoCalGas

SoCalGas Commercial - (Excluding Public Accounts)

Metric Type	Final Common Metric or Indicator	Index	2016	2017	2018
S1: Energy Savings	**First Year Annual and Lifecycle ExAnte(Pre-Evaluation) Gas, Electric, and Demand Savings (Gross and Net) for Commercial customers**				
	Gross Therm for Commercial	143	3,552,481	3,342,185	5,503,702
	Net Therm for Commercial	144	2,221,709	2,132,366	3,775,064
	Gross Therm LifeCycle for Commercial	149	42,882,610	42,998,315	53,164,127
	Net Therm LifeCycle for Commercial	150	26,867,413	27,300,788	35,216,284
S2: Percent Overall Sectoral Savings	**Electric, and Demand Savings (Gross and Net) as a percentage of overall sectoral usage**				
	Percent of Gross Therm of Commercial usage	155	0.48%	0.44%	0.70%
	Percent of Net Therm of Commercial usage	156	0.30%	0.28%	0.48%
	Percent of Gross Therm LifeCycle of Commercial usage	161	5.74%	5.69%	6.80%
	Percent of Net Therm LifeCycle of Commercial usage	162	3.60%	3.61%	4.51%
GHG	**Greenhouse Gas (MT CO2) Savings, reported on an annual basis**				
	Gross Gas CO2	163	20,243	20,128	28,765
D2: Depth of intervention by project	**Energy Savings Gross Therm as a fraction of project consumption**				
	Percent of Savings of Project Consumption	166	10%	8%	9%

SoCalGas Commercial - (Excluding Public Accounts)

Metric Type	Final Common Metric or Indicator	Index	2016	2017	2018
P1: Penetration of Energy Efficiency Programs in the Eligible Market Metric	**Commercial Sector Participants relative to eligible population for Small, Medium, and Large Customer**				
	Percent of participation relative to eligible population - Small<10,000 therms	169	0.69%	0.86%	2.28%
	Percent of participation relative to eligible population - 10,000<=Medium<=50,000 therms	168	4.12%	4.11%	6.89%
	Percent of participation relative to eligible population - Large>50,000 therms	167	5.88%	6.58%	6.31%
P2: Penetration of energy efficiency	**Percent of Square feet of eligible population**				
	Percent of Square feet of eligible population	170	1.01%	1.12%	1.88%
P4: Penetration of energy efficiency	**Percent of participation in Hard to Reach Communities**				
	Percent of participation in Hard to Reach Communities	171	0.08%	0.14%	1.88%
Cost per unit saved	**Levelized Cost of Energy Efficiency per Therm for Commercial**				
	Levelized PAC Cost	179	0.50	0.29	0.42
	Levelized TRC Cost	182	0.61	0.42	0.57

SoCalGas Commercial - (Excluding Public Accounts)

Metric Type	Final Common Metric or Indicator	Index	2016	2017	2018
Benchmarking penetration for commercial sector	**Benchmarked Customers relative to eligible population**				
	Percent of eligible population for Commercial Sector in Portfolio Manager	IN	0.3%	0.3%	0.4%
	Percent of benchmarked customers relative to eligible population for **large** customers	173	1.8%	3.0%	2.4%
	Percent of benchmarked customers relative to eligible population for **medium** customers	174	0.8%	1.3%	1.5%
	Percent of benchmarked customers relative to eligible population for **small** customers	175	0.2%	0.2%	0.3%
B6: Benchmarking of HTR Properties	**Percent of participation by customers defined as HTR**				
	Percent of benchmarking by customers defined as "hard-to-reach"	176	0.0%	0.1%	0.1%
P2: Penetration of EE programs (sqft of eligible	**Percent of benchmarked square feet of eligible population**				
	C-B2 - Percent of benchmarked square feet of eligible population	172	0.3%	0.3%	0.4%

**For COM1- COM Therm Savings exclude missing BA_IDs for COM Customers (BA_ID level) because participant counts are based on the BA_ID(service account) level

**CO2 includes at the ClaimID Level

**GrossGasCO2 = GrossElecCO2 + GrossGasCO2

**Number of Commercial Customer participant in Benchmark sources from RW out of the Commercial Customer in Portfolio Manager

**RW- ReportingWarehouse, EE Claim Database; CIS-Customer Information System; BA_ID (Service Account)

Investment in Energy Efficiency

Total incentive

Total project cost

=TotalIncentive(COM, RW)/Total Expenditure (SCG-COM, CEDARS)=6,069,606/17,813,417=34%

SoCalGas Commercial - (Excluding Public Accounts)

Metric Type	Final Common Metric or Indicator	Formula (Numerator/Denominator)		2016	2017	2018
S1: Energy Savings	**First Year Annual and Lifecycle ExAnte(Pre-Evaluation) Gas, Electric, and Demand Savings (Gross and Net) for Commercial customers**					
	Gross Therm for Commercial					
	Net Therm for Commercial					
	Gross Therm LifeCycle for Commercial					
	Net Therm LifeCycle for Commercial					
S2: Percent Overall Sectoral Savings	**Electric, and Demand Savings (Gross and Net) as a percentage of overall sectoral usage**					
	Percent of Gross Therm of Commercial usage	N	Annualized Gross Therm Saved by Commercial	3,552,481	3,342,185	5,503,702
		D	Total Usage of Commercial Sector	746,694,714	755,911,598	781,345,882
	Percent of Net Therm of Commercial usage	N	Annualized Net Therm Saved by Commercial	2 221 709	2 132 366	3 775 064
		D	Total Usage of Commercial Sector	746,694,714	755,911,598	781,345,882
	Percent of Gross Therm LifeCycle of Commercial usage	N	Annualized Gross Therm LifeCycle Saved by Commercial	42,882,610	42,998,315	53,164,127
		D	Total Usage of Commercial Sector	746,694,714	755,911,598	781,345,882
	Percent of Net Therm LifeCycle of Commercial usage	N	Annualized Net Therm LifeCycle Saved by Commercial	26,867,413	27,300,788	35,216,284
		D	Total Usage of Commercial Sector	746,694,714	755,911,598	781,345,882
GHG	**Greenhouse Gas (MT CO2) Savings, reported on an annual ba**					
	Gross Gas CO2			20,243	20,128	31,708
D2: Depth of interventio n by project	**Energy Savings Gross Therm as a fraction of project consumpt**					
	Percent of Savings of Project Consumption	N	Annualized Therm Saved for all Commercial Projects	3 552 481	3 342 185	5 503 702
		D	Total Usage of the all Commercial Customers with Projects	35,477,951	43,068,273	59,907,288

SoCalGas Commercial - (Excluding Public Accounts)

Metric Type	Final Common Metric or Indicator	Formula (Numerator/Denominator)		2016	2017	2018
P1: Penetration of Energy Efficiency Programs in the Eligible Market Metric	**Commercial Sector Participants relative to eligible population for Small, Medium, and Large Customer**					
	Percent of participation relative to eligible population - Small<10,000 therms	N	# Commercial Participants Small	1,161	1,433	3,771
		D	# Commercial Customers Small < 10,000 therms	167,582	167,282	165,481
	Percent of participation relative to eligible population - 10,000<=Medium<=50,000 therms	N	# Commercial Participants Medium	590	593	1 029
		D	# Commercial Customers 10,000<=medium<=50,000 therms	14,320	14,427	14,940
	Percent of participation relative to eligible population - Large>50,000 therms	N	# Commercial Participants Large	79	90	93
		D	# Commercial Customers Large>50,000 therms	1,344	1,368	1,474
P2: Penetration of energy efficiency	**Percent of Square feet of eligible population**					
	Percent of Square feet of eligible population	N	Sum of each participant Sq footage from CSS	10,915,011	12,089,719	19,652,535
		D	Number of Square feet of Eligible Population	1.08E+09	1.08E+09	1.05E+09
P4: Penetration of energy efficiency	**Percent of participation in Hard to Reach Communities**					
	Percent of participation in Hard to Reach Communities	N	Number of Commercial Participants in HTR	63	113	1 538
		D	Number of Commercial in HTR	82,999	82,888	81,659
Cost per unit saved	**Levelized Cost of Energy Efficiency per Therm for Commercial**					
	Levelized PAC Cost	N	(PAC cost * Gas benefits)/Total Benefits	13,367,249	7,809,808	14,702,537
		D	LifeCycleNetTherm	26,867,413	27,300,788	35,216,284
	Levelized TRC Cost	N	(TRC cost * Gas benefits)/Total Benefits	16 494 696	11 410 350	20 190 227
		D	LifeCycleNetTherm	26,867,413	27,300,788	35,216,284

SoCalGas Commercial - (Excluding Public Accounts)

Metric Type	Final Common Metric or Indicator	Formula (Numerator/Denominator)		2016	2017	2018
Benchmarking penetration for commercial sector	**Benchmarked Customers relative to eligible population**					
	Percent of eligible population for Commercial Sector in Portfolio Manager	N	# Commercial Customer participant in Benchmark	476	582	689
		D	# Commercial Customer (Population)	183,246	183,077	181,895
	Percent of benchmarked customers relative to eligible population for **large** customers	N	# Commercial Customer participant in Benchmark (Large)	24	41	35
		D	# Commercial Customer (Large)	1,344	1,368	1,474
	Percent of benchmarked customers relative to eligible population for **medium** customers	N	# Commercial Customer participant in Benchmark(Medium)	116	187	223
		D	# Commercial Customer (Medium)	14,320	14,427	14,940
	Percent of benchmarked customers relative to eligible population for **small** customers	N	# Commercial Customer participant in Benchmark (Small)	336	354	431
		D	# Commercial Customer (Small)	167,582	167,282	165,481
B6: Benchmarking of HTR Properties	**Percent of participation by customers defined as HTR**					
	Percent of benchmarking by customers defined as "hard-to-reach"	N	# Commercial Customer participant in Benchmark(HTR)	17	113	238
		D	# Commercial Participants	167,582	167,282	165,481
P2: Penetration of EE programs (sqft of eligible	**Percent of benchmarked square feet of eligible population**					
	C-B2 - Percent of benchmarked square feet of eligible population	N	SqFt of benchmarked commercial buildings in Portfolio Mgr	3,331,699	2,806,939	4,656,629
		D	Number of Sq. Ft. participation(Sum of each participant Sqft)	1,082,940,175	1,078,613,482	1,047,406,442

**For COM1- COM Therm Savings exclude missing BA_IDs for COM Custome
counts are based on the BA_ID(service account) level
**CO2 includes at the ClaimID Level
**GrossGasCO2 = GrossElecCO2 + GrossGasCO2
**Number of Commercial Customer participant in Benchmark sources from I
Portfolio Manager
**RW- ReportingWarehouse, EE Claim Database; CIS-Customer Information S
Investment in Energy Efficiency
Total incentive
Total project cost
=TotalIncentive(COM, RW)/Total Expenditure (SCG-COM, CEDARS)=6,069,6(

SoCalGas Public Sector (P)

Metric Type	Final Common Metric or Indicator	Index	2016	2017	2018
S1: Energy Savings	**First Year Annual and Lifecycle ExAnte(Pre-Evaluation) Gas, Electric, and Demand Savings (Gross and Net) for Commercial customers**				
	Gross Therm for Public	192	884,283	815,153	721,490
	Net Therm for Public	193	630,567	567,915	530,464
	Gross Therm LifeCycle for Public	198	7,687,113	8,570,956	7,535,757
	Net Therm LifeCycle for Public	199	5,425,342	5,899,598	5,723,255
GHG	**Greenhouse gas (MT CO2eq) based on net lifecycle kWh and**				
	Gross Gas CO2	200	5,210	4,770	3,825
D3: Depth of interventions per building	**Average Energy Savings (therms) per Project Building or Facility**				
	Life Cycle Net Average Savings Per Project	203	17,730	33,331	30,443
D5: Depth of interventions per	**Average Energy Savings (therms) per Project Building Floor Plan Area**				
	Life Cycle Net Average of Savings per Sq.Ft	206	1.88	3.14	2.86
Water	**Average Energy Savings (therms) per Project Water/Wastewater Facilities**				
	Average of Savings per Gallons	IN	TBD	TBD	0
P1: Penetration of energy efficiency programs in the elibible market ++ Percent of participation	**Public Sector Participants relative to eligible population for Small, Medium, and Large Customer**				
	Percent of Public Sector accounts participating in programs	IN	2%	1%	1%
	Percent of eligible population for Small Customer in Public Sector	IN	1%	1%	1%
	Percent of eligible population for Medium Customer in Public Sector	IN	5%	4%	3%
	Percent of eligible population for Large Customer in Public	IN	9%	10%	8%

SoCalGas Public Sector (P)

Metric Type	Final Common Metric or Indicator	Index	2016	2017	2018
	Sector	IN	9%	10%	8%

SoCalGas Public Sector (P)

Metric Type	Final Common Metric or Indicator	Index	2016	2017	2018
Cost per unit saved Metric	**Levelized Cost of Energy Efficiency per Therm for Public**				
	Levelized PAC Cost	215	0.59	0.32	0.31
	Levelized TRC Cost	218	0.80	0.50	0.65
Energy Intensity per public building	**Average Energy Use Intensity of all Public Sector Building**				
	Average Energy use of all Public Sector in KBtu/Sqft	221	106	107	116
Public Sector Benchmarking Penetration Calendar Year	**Percent of Public Sector building benchmarked**				
	Percent of Public Sector buildings with current benchmark	220	3%	3%	5%
	Percent of floorplan area of all Public Sector buildings with current benchmark	222	2%	1%	1%

**For PUB1- PUB Therm Savings exclude missing BA_IDs for PUB Customers (BA_ID level) because participant counts are based on the BA_ID(service account) level

**CO2 includes at the ClaimID Level

**GrossGasCO2 = GrossElecCO2 + GrossGasCO2

**Public sector is 10,626 sq ft

**Number of Public Accounts with Benchmark sources from CIS Public Accounts to which Public Accounts falls into the Portofolio Manager

**Public Accounts falls in Portofolio Manager with CIS usage in 2016 & 2017 counted in both 2016 and 2017; if no usage in 2016, counted as 2017 or vice versa

**RW- ReportingWarehouse, EE Claim Database; CIS-Customer Information System; BA_ID (Service Account)

SoCalGas Public Sector (P)

Metric Type	Final Common Metric or Indicator	Formula (Numerator/Denominator)		2016	2017	2018
S1: Energy Savings	**First Year Annual and Lifecycle ExAnte(Pre-Evaluation) Gas, Electric, and Demand Savings (Gross and Net) for Commercial customers**					
	Gross Therm for Public					
	Net Therm for Public					
	Gross Therm LifeCycle for Public					
	Net Therm LifeCycle for Public					
GHG	**Greenhouse gas (MT CO2eq) based on net lifecycle kWh and**					
	Gross Gas CO2					
D3: Depth of interventions per building	**Average Energy Savings (therms) per Project Building or Facili**					
	Life Cycle Net Average Savings Per Project	N	Annualized LifeCycle Net Therm Saved for all Public Projects	5,425,342	5,899,598	5,723,255
		D	Total Number of Projects/Building in the Public Sector	306	177	188
D5: Depth of interventions per	**Average Energy Savings (therms) per Project Building Floor Pl**					
	Life Cycle Net Average of Savings per Sq.Ft	N	Annualized LifeCycle Net Therm Saved for all Public Projects	5,425,342	5,899,598	5,723,255
		D	Total Number of Sq. Ft Area for the Public Sector Participants	2,890,272	1,880,802	1,997,688
Water	**Average Energy Savings (therms) per Project Water/Wastewa**					
	Average of Savings per Gallons	N	Projects of Waste Water Projects	TBD	TBD	TBD
		D	Total Number of Wastewater Projects	TBD	TBD	TBD
P1: Penetration of energy efficiency programs in the elibible market ++ Percent of participation	**Public Sector Participants relative to eligible population for Small, Medium, and Large Customer**					
	Percent of Public Sector accounts participating in programs	N	Number of Public Sector participant	272	177	165
		D	Number of Public Accounts	13,338	13,218	12,300
	Percent of eligible population for Small Customer in Public Sector	N	Number of Public Participants in relative to Small Customer	140	88	88
		D	Total Numbers Public Customer who are Small<10,000 therms	11,662	11,504	10,629
	Percent of eligible population for Medium Customer in Public Sector	N	Number of Public Participants in relative to Medium Customer	61	53	40
		D	therms	1,204	1,226	1,179
	Percent of eligible population for Large Customer in Public	N	Number of Public Participants in relative to Large Customer	43	51	37

SoCalGas Public Sector (P)

Metric Type	Final Common Metric or Indicator	Formula (Numerator/Denominator)	2016	2017	2018
	Sector	Number of Commercial Customers Large>50,000 therms	472	488	492
		D			

SoCalGas Public Sector (P)

Metric Type	Final Common Metric or Indicator	Formula (Numerator/Denominator)		2016	2017	2018
Cost per unit saved Metric	**Levelized Cost of Energy Efficiency per Therm for Public**					
	Levelized PAC Cost	N	(PAC cost * Gas benefits)/Total Benefits	3 211 173	1 869 230	1 799 248
		D	LifeCycleNetTherm	5,425,342	5,899,598	5,723,255
	Levelized TRC Cost	N	(TRC cost * Gas benefits)/Total Benefits	4,358,165	2,959,870	3,702,202
		D	LifeCycleNetTherm	5,425,342	5,899,598	5,723,255
Energy Intensity per public building	**Average Energy Use Intensity of all Public Sector Building**					
	Average Energy use of all Public Sector in KBtu/Sqft	N	Total therm of all Public Customer	150 346 845	150 336 395	151 625 049
		D	Total Sqft of all Public buildings	141,729,588	140,454,468	130,699,800
Public Sector Benchmarking Penetration Calendar Year	**Percent of Public Sector building benchmarked**					
	Percent of Public Sector buildings with current benchmark	N	Number of Public Accounts with Benchmark	451	462	612
		D	Number of Public Accounts	13,338	13,218	12,300
	Percent of floorplan area of all Public Sector buildings with current benchmark	N	Number of Public Customer Participants in Sq. Ft in Portfolio M	2 890 272	1 880 802	1 753 290
		D	(Sqft Public Account=10626 sqft * # Public Accounts)	1.42E+08	1.40E+08	1.31E+08

**For PUB1- PUB Therm Savings exclude missing BA_IDs for PUB Customers are based on the BA_ID(service account) level
**CO2 includes at the ClaimID Level
**GrossGasCO2 = GrossElecCO2 + GrossGasCO2
**Public sector is 10,626 sq ft
**Number of Public Accounts with Benchmark sources from CIS Public Accou the Portofolio Manager
**Public Accounts falls in Portofolio Manager with CIS usage in 2016 & 2017 usage in 2016, counted as 2017 or vice versa
**RW- ReportingWarehouse, EE Claim Database; CIS-Customer Information S

Industrial

SoCalGas

SoCalGas Industrial (I)

Type	Final Common Metric or Indicator	Index	2016	2017	2018
S1: Energy Savings	**First Year Annual and Lifecycle ExAnte(Pre-Evaluation) Gas, Electric, and Demand Savings (Gross and Net) for**				
	Gross Therm for Industrial	227	4,579,095	1,429,754	936,228
	Net Therm for Industrial	228	2,372,078	821,624	530,172
	Gross Therm LifeCycle for Industrial	233	42,317,801	19,790,562	15,041,075
	Net Therm LifeCycle for Industrial	234	23,612,963	11,318,758	8,509,879
GHG	**Greenhouse Gas (MT CO2) Savings, reported on an annual basis**				
	Gross Gas CO2	235	21,329	8,590	4,665
Penetration of energy efficiency programs in the eligible market	**Industrial Sector Participants relative to eligible population for Small, Medium, and Large Customer**				
	Percent of eligible population for Small Customer in Industrial S	236	0.13%	0.08%	0.05%
	Percent of eligible population for Medium Customer in Industri	237	1.02%	0.78%	0.53%
	Percent of eligible population for Large Customer in Industrial S	238	4.55%	3.17%	2.94%
New Participation	**Percent of customers participating that have not received an incentive for the last three years, annually, by SML customer**				
	Percent of New Participants by Small Customer	IN	0.09%	0.08%	0.05%
	Percent of New Participants by Medium Customer	IN	1.02%	0.61%	0.44%
	Percent of New Participants by Large Customer	IN	2.87%	2.48%	2.25%

SoCalGas Industrial (I)

Type	Final Common Metric or Indicator	Index	2016	2017	2018
Cost per unit saved	**Levelized Cost of Energy Efficiency per Therm for Industrial**				
	Levelized PAC Cost	244	0.28	0.35	0.55
	Levelized TRC Cost	247	0.42	0.44	0.61
S2: Percent Overall Sectoral Savings	**Reduction in Consumption (Proposed by SCE and SDG&E)**				
	Change in Consumption	259	712,174,240	698,320,594	702,740,466
	Percent first year annual Therm Gross	252	0.64%	0.20%	0.13%
	Percent first year annual Therm Net	253	3.32%	1.62%	0.08%
	Percent LifeCycle Ex-Ante Therm Gross	258	5.94%	2.83%	2.14%
	Percent LifeCycle Ex-Ante Therm Net	259	3.32%	1.62%	1.21%

**For IND1- IND Therm Savings exclude missing BA_IDs for IND Customers (BA_ID level) because participant counts are based on the bill account level

**CO2 includes at the ClaimID Level

**GrossGasCO2 = GrossElecCO2 + GrossGasCO2

**RW- ReportingWarehouse, EE Claim Database; CIS-Customer Information System; BA_ID (Service Account)

SoCalGas Industrial (I)

Type	Final Common Metric or Indicator	Formula (Numerator/Denominator)		2016	2017	2018
S1: Energy Savings	**First Year Annual and Lifecycle ExAnte(Pre-Evaluation) Gas, Electric, and Demand Savings (Gross and Net) for**					
	Gross Therm for Industrial	(0.35)				
	Net Therm for Industrial					
	Gross Therm LifeCycle for Industrial					
	Net Therm LifeCycle for Industrial					
GHG	**Greenhouse Gas (MT CO2) Savings, reported on an annual bas**					
	Gross Gas CO2					
Penetration of energy efficiency programs in the eligible market	**Industrial Sector Participants relative to eligible population for Small, Medium, and Large Customer**					
	Percent of eligible population for Small Customer in Industrial S	N	# Industrial Participants - Small	19	12	7
		D	# Industrial Customer - Small<10,000 therms	14,827	14,452	14,361
	Percent of eligible population for Medium Customer in Industri	N	# Industrial Participants - Medium	12	9	6
		D	# Industrial Customers 10,000<=medium<=50,000 therms	1,182	1,157	1,135
	Percent of eligible population for Large Customer in Industrial S	N	# Industrial Participants - Large	54	37	34
		D	# Industrial Customers Large>50,000 therms	1,186	1,168	1,156
New Participation	**Percent of customers participating that have not received an incentive for the last three years, annually, by SML customer**					
	Percent of New Participants by Small Customer	N	# New small participants in the past three year	14	11	7
		D	# Industrial Customer Small<10,000 therms	14,827	14,452	14,361
	Percent of New Participants by Medium Customer	N	# New medium participants in the past three year	12	7	5
		D	# Industrial Customers 10,000<=medium<=50,000 therms	1,182	1,157	1,135
	Percent of New Participants by Large Customer	N	# new large participants in the past three year	34	29	26
		D	# Industrial Customers Large>50,000 therms	1,186	1,168	1,156

SoCalGas Industrial (I)

Type	Final Common Metric or Indicator	Formula (Numerator/Denominator)		2016	2017	2018
Cost per unit saved	**Levelized Cost of Energy Efficiency per Therm for Industrial**					
	Levelized PAC Cost	N	(PAC cost * Gas benefits)/Total Benefits	6,496,364	3,981,875	4,707,134
		D	LifeCycleNetTherm	23,612,963	11,318,758	8,509,879
	Levelized TRC Cost	N	(TRC cost * Gas benefits)/Total Benefits	9 970 136	5 013 001	5 188 079
		D	LifeCycleNetTherm	23,612,963	11,318,758	8,509,879
S2: Percent Overall Sectoral Savings	**Reduction in Consumption (Proposed by SCE and SDG&E)**					
	Change in Consumption			712,174,240	698,320,594	702,740,466
	Percent first year annual Therm Gross	N	First Year Gross Therm	4,579,095	1,429,754	936,228
		D	Total Sector Usage	712,174,240	698,320,594	702,740,466
	Percent first year annual Therm Net	N	First Year Net Therm	23 612 963	11 318 758	530 172
		D	Total Sector Usage	712,174,240	698,320,594	702,740,466
	Percent LifeCycle Ex-Ante Therm Gross	N	First Year LifeCycle Gross Therm	42,317,801	19,790,562	15,041,075
		D	Total Sector Usage	712,174,240	698,320,594	702,740,466
	Percent LifeCycle Ex-Ante Therm Net	N	First Year LifeCycle Net Therm	23 612 963	11 318 758	8 509 879
		D	Total Sector Usage	712,174,240	698,320,594	702,740,466

**For IND1- IND Therm Savings exclude missing BA_IDs for IND Customers (E
are based on the bill account level
**CO2 includes at the ClaimID Level
**GrossGasCO2 = GrossElecCO2 + GrossGasCO2
**RW- ReportingWarehouse, EE Claim Database; CIS-Customer Information

Agricultural

SoCalGas

SoCalGas Agricultural (A)

Metric Type	Final Common Metric or Indicator	Index	2016	2017	2018
S1: Energy Savings	**First Year Annual and Lifecycle ExAnte(Pre-Evaluation) Gas, Electric, and Demand Savings (Gross and Net)**				
	Gross Therm for Agricultural	264	655,844	1,371,872	1,692,831
	Net Therm for Agricultural	265	400,312	889,092	1,087,033
	Gross Therm LifeCycle for Agricultural	270	3,437,678	8,648,090	14,252,908
	Net Therm LifeCycle for Agricultural	271	2,091,128	5,583,216	8,740,458
GHG	**Greenhouse Gas (MT CO2) Savings, reported on an annual basis**				
	Gross Gas CO2	272	3,953	8,177	9,031
P1: Penetration of energy efficiency programs in the eligible market	**Agricultural Sector Participants relative to eligible population for Small, Medium, and Large Customer**				
	Percent of eligible population for Small Customer in Agricultural Sector	275	0.00%	0.00%	0.00%
	Percent of eligible population for Medium Customer in Agricultural Sector	274	1.2%	0.7%	0.4%
	Percent of eligible population for Large Customer in Agricultural Sector	273	5.09%	7.69%	6.56%
Cost per unit saved	**Levelized Cost of Energy Efficiency per Therm for Industrial**				
	Levelized PAC Cost	278	0.32	0.34	0.22
	Levelized TRC Cost	281	0.44	0.48	0.31

**For AG1- AG Therm Savings exclude missing BA_IDs for AG Customers (BA_ID level) because participant counts are based on the bill account level.

**CO2 includes at the ClaimID Level

**GrossGasCO2 = GrossElecCO2 + GrossGasCO2

**RW- ReportingWarehouse, EE Claim Database; CIS-Customer Information System; BA_ID (Service Account)

SoCalGas Agricultural (A)

Metric Type	Final Common Metric or Indicator		Formula (Numerator/Denominator)	2016	2017	2018
S1: Energy Savings	**First Year Annual and Lifecycle ExAnte(Pre-Evaluation) Gas, Electric, and Demand Savings (Gross and Net)**					
	Gross Therm for Agricultural					
	Net Therm for Agricultural					
	Gross Therm LifeCycle for Agricultural					
	Net Therm LifeCycle for Agricultural					
GHG	**Greenhouse Gas (MT CO2) Savings, reported on an annual bas**					
	Gross Gas CO2					
P1: Penetration of energy efficiency programs in the eligible market	**Agricultural Sector Participants relative to eligible population for Small, Medium, and Large Customer**					
	Percent of eligible population for Small Customer in Agricultural Sector	N	# Agricultural Participants - Small	0	0	0
		D	# Agricultural Customer Small<10,000 therms	1,198	1,283	1,253
	Percent of eligible population for Medium Customer in Agricultural Sector	N	# Agricultural Participants - Medium	6	3	2
		D	# Agricultural Customers 10,000<=medium<=50,000 therms	498	405	445
	Percent of eligible population for Large Customer in Agricultural Sector	N	# Agricultural Participants - Large	14	18	17
		D	# Agricultural Customers Large>50,000 therms	275	234	259
Cost per unit saved	**Levelized Cost of Energy Efficiency per Therm for Industrial**					
	Levelized PAC Cost	N	(PAC cost * Gas benefits)/Total Benefits	664 577	1 870 948	1 965 636
		D	LifeCycleNetTherm	2,091,128	5,583,216	8,740,458
	Levelized TRC Cost	N	(TRC cost * Gas benefits)/Total Benefits	925,993	2,682,193	2,744,711
		D	LifeCycleNetTherm	2,091,128	5,583,216	8,740,458

**For AG1- AG Therm Savings exclude missing BA_IDs for AG Customers (BA based on the bill account level.

**CO2 includes at the ClaimID Level

**GrossGasCO2 = GrossElecCO2 + GrossGasCO2

**RW- ReportingWarehouse, EE Claim Database; CIS-Customer Information

Codes and Standards

SoCalGas

NOTE: Codes and Standards is a statewide program. Subsequently, all IOUs file the same C&S metrics.

Index	Metric	Data Type	2016 (Baseline)	2017 Achievements	2018 Achievements	Methodology
282	Net GWh savings	Metric	1,402	1,889	1,450	EM&V study
283	Net MMTherms savings	Metric	29	42	45	EM&V study
284	Net MW savings	Metric	272	346	333	EM&V study
285	Number of measures supported by CASE studies in rulemaking cycle (current work)	Metric	12	23	64	Measures supported by CASE
286	Number of measures adopted by CEC in rulemaking cycle (indicator of past work)	Metric	12	-	57	Measures adopted by CEC
287	Number of T-20 measures supported by CASE studies in rulemaking cycle (current work)	Metric	5	5	4	T-20 measures supported by CASE
288	Number of measures adopted by CEC in current year	Metric	4	-	3	Measures adopted by CEC
289	Number of federal standards adopted for which a utility advocated (IOUs to list advocated activites)	Metric	22	7	-	Standards adopted
290	Percent of federal standards adopted for which a utility advocated (#IOU supported / # DOE adopted)	Metric	100%	100%	N/A	# IOUs supported/# DOE adopted
291	The number of local government Reach Codes implemented (this is a joint IOU and REN effort)	Metric	6	12	5	Reach Code ordinances implemented
292	Number of training activities (classes, webinars) held, number of market actors participants by segment (e g. building officials, builders, architects, etc.) and the the total size (number of the target audience) by sector. (M) Number of training activities	Metric	138	118	191	Number of training activities
293	Number of training activities (classes, webinars) held, number of market actors participants by segment (e g. building officials, builders, architects, etc.) and the the total size (number of the target audience) by sector. (M) Number of participants	Metric	3,600	3,000	4,970	Number of participants
294	Increase in code compliance knowledge pre/post training	Metric	20%	20%	18%	Knowledge score

NOTE: (

Index	Key Definitions
282	2018-2025 consistent with adopted goals from D.17-09-025, Tables 1, 2, and 3, p. 37-39; 2016 from CEDARS (spillover not included). Values summed across all four IOUs. "Savings" is defined as Net First year savings.
283	2018-2025 consistent with adopted goals from D.17-09-025, Tables 1, 2, and 3, p. 37-39; 2016 from CEDARS (spillover not included). Values summed across all four IOUs. "Savings" is defined as Net First year savings.
284	2018-2025 consistent with adopted goals from D.17-09-025, Tables 1, 2, and 3, p. 37-39; 2016 from CEDARS (spillover not included). Values summed across all four IOUs. "Savings" is defined as Net First year savings.
285	Baseline and targets for measures supported are for 3 year cycle rather than annual.
286	Baseline and targets for measures supported are for 3 year cycle rather than annual.
287	Baseline is annual. Targets for measures supported are for 3 year cycle rather than annual. 2017 chosen as baseline since 2016 was zero.
288	Baseline is annual. Targets for measures adopted are for 3 year cycle rather than annual.
289	Baselines and targets are annual. Any federal standards based upon Title 20 that were adopted will still be included in the federal count.
290	Baselines and targets are annual.
291	Targets are total for a three-year Title 24 code cycle. Jurisdictions having multiple reach codes will be counted by reach code rather than by jurisdiction. Accomplishments will be reported from the CEC Reach Codes website (http://www.energy.ca.gov/title24/2013standards/ordinances/).
292	118 live training sessions and 20 webinars in 2017; short, mid, and long-term targets are annual
293	3000 attendees for live training and 600 attendees for webinars in 2017; short, mid, and long-term targets are annual. Attendees will be shown by major segment (i e., building officials, builders, architects, HERS raters) and target size of each segment will be provided during first metrics reporting.
294	Code compliance knowledge increase will be tested via pre and post training questionaires. Surveys will be conducted for training that lasts longer than three hours (in order to preserve time for instruction in shorter training sessions). Questionaires will be made available during the first metrics reporting.

Emerging Technologies

SoCalGas

Sector: Emerging Technologies
Common Problem: 1 - Need to track Technolog
Reference #: 253
Metric: ETP-M1: 6* TPMs (gas and electric combined) initiated within the first 3 years (including 1 Technology-focused Pilot TPM identifying market barriers for a diverse range of high-impact technologies through studies, and subsequently breaking down identified barriers via cooperative projects initiated in coordination with WE&T, ME&O, and other relevant IOU programs)
* This number will be updated once all third party contracts have been awarded.

		Data	Unit	Assumptions and Notes
Baseline (2016)				
	Numerator	N/A	N/A	N/A
	Denominator	N/A	N/A	N/A
	Baseline	N/A	# TPM	
2018 Targets				
		N/A	N/A	N/A
	Denominator	N/A	N/A	N/A
	Target		# TPM	Data for this metric will be gathered from 3P TPM Implementers annually.
2019 Targets				
	Denominator	N/A	N/A	N/A
	Target		# TPM	Data for this metric will be gathered from 3P TPM Implementers annually.
		2		
2020 Targets				
	Numerator	N/A	N/A	N/A
	Denominator	N/A	N/A	N/A
	Target		# TPM	Data for this metric will be gathered from 3P TPM Implementers annually.
		2		
Mid-Term Targets (2021 - 2				
	Numerator	N/A	N/A	N/A
	Denominator	N/A	N/A	N/A
	Target	TBD	# TPM	Data for this metric will be gathered from 3P TPM Implementers annually.
Long-Term Targets (2024 - :				
	Numerator	N/A	N/A	N/A

Denominator	N/A	N/A	N/A
Target	TBD	# TPM	Data for this metric will be gathered from 3P TPM Implementers annually.

Note(s)

- 1) Technology priority maps (TPMs) are defined in the Business Plan 2) Technology-focused pilot: See ETP-M7

Sector: Emerging Technologies
Common Problem: 1- Need to track TPM updating activity
Reference #: 254
Metric: ETP-M2: 3 TPMs updated within the first 3 years

		Data	Unit
Baseline (2016)			
	Numerator	N/A	N/A
	Denominator	N/A	N/A
	Baseline	N/A	# TPM
2018 Targets			
		N/A	N/A
	Denominator	N/A	N/A
	Target		# TPM
	1		
2019 Targets			
	Denominator	N/A	N/A
	Target		# TPM
	1		
2020 Targets			
	Numerator	N/A	N/A
	Denominator	N/A	N/A
	Target		# TPM
	1		
Mid-Term Targets (2021 - 2			
	Numerator	N/A	N/A
	Denominator	N/A	N/A
	Target	TBD	# TPM
Long-Term Targets (2024 - 2			
	Numerator	N/A	N/A

Denominator	N/A	N/A
Target	TBD	# TPM

Note(s)

- 1) Technology priority maps (TPMs) are defined in the Business Plan

Sector:
Common Problem:
Reference #:
Metric:

		Assumptions and Notes
Baseline (2016)		
	Numerator	N/A
	Denominator	N/A
	Baseline	
2018 Targets		
		N/A
	Denominator	N/A
	Target	Data for this metric will be gathered from 3P TPM Implementers annually.
2019 Targets		
	Denominator	N/A
	Target	Data for this metric will be gathered from 3P TPM Implementers annually.
2020 Targets		
	Numerator	N/A
	Denominator	N/A
	Target	Data for this metric will be gathered from 3P TPM Implementers annually.
Mid-Term Targets (2021 - 2		
	Numerator	N/A
	Denominator	N/A
	Target	Data for this metric will be gathered from 3P TPM Implementers annually.
Long-Term Targets (2024 - 2		
	Numerator	N/A

Denominator	N/A
Target	

Data for this metric will be gathered from 3P TPM Implementers annually.

Note(s)

Sector:	**Emerging Technologies**
Common Problem:	**1 - Need to track project activity**
Reference #:	**255**
Metric:	**ETP-M3: 183* projects initiated within the first 3 years**
	***This averages 61 projects per year; this number will be updated once all third p**

		Data	Unit
Baseline (2016)			
	Numerator	N/A	N/A
	Denominator	N/A	N/A
	Baseline	N/A	# TPM
2018 Targets			
		N/A	N/A
	Denominator	N/A	N/A
	Target		# TPM
		61	
2019 Targets			
	Denominator	N/A	N/A
	Target		# TPM
		61	
2020 Targets			
	Numerator	N/A	N/A
	Denominator	N/A	N/A
	Target		# TPM
		61	
Mid-Term Targets (2021 - 2			
	Numerator	N/A	N/A
	Denominator	N/A	N/A
	Target	TBD	# TPM
Long-Term Targets (2024 - 2			
	Numerator	N/A	N/A

Denominator	N/A	N/A
Target	TBD	# TPM

Note(s)

- 1) Technology priority maps (TPMs) are defined in the Business Plan 2) Projects

Sector:	**Emerging Technologies**
Common Problem:	**1 - Need to track event activity**
Reference #:	**256**
Metric:	**ETP-M4: Host 15 outreach events with t**

arty contracts have been awarded.

		Assumptions and Notes		Data
Baseline (2016)				
	Numerator	N/A		N/A
	Denominator	N/A		N/A
	Baseline			N/A
2018 Targets				
		N/A		N/A
	Denominator	N/A		N/A
	Target	Data for this metric will be gathered from 3P TPM Implementers annually.		
			2	
2019 Targets				
	Denominator	N/A		N/A
	Target			
		Data for this metric will be gathered from 3P TPM Implementers annually.	2	
2020 Targets				
	Numerator	N/A		N/A
	Denominator	N/A		N/A
	Target			
		Data for this metric will be gathered from 3P TPM Implementers annually.	3	
Mid-Term Targets (2021 - 2				
	Numerator	N/A		N/A
	Denominator	N/A		N/A
	Target			TBD
		Data for this metric will be gathered from 3P TPM Implementers annually.		
Long-Term Targets (2024 - 2				
	Numerator	N/A		N/A

Denominator	N/A	N/A
Target		TBD

Data for this metric will be gathered from 3P TPM Implementers annually.

Note(s)

are considered "initiated" when project budget has been approved and funding allocated.

- 1) "Technology developers" – Any orga
meetings, as proposed by ETP implemen

Sector:
Common Problem:
Reference #:
Metric: **echnology developers with products <1 y**

		Unit
Baseline (2016)		
	Numerator	N/A
	Denominator	N/A
	Baseline	# TPM
2018 Targets		
		N/A
	Denominator	N/A
	Target	# TPM
2019 Targets		
	Denominator	N/A
	Target	# TPM
2020 Targets		
	Numerator	N/A
	Denominator	N/A
	Target	# TPM
Mid-Term Targets (2021 - 2		
	Numerator	N/A
	Denominator	N/A
	Target	# TPM
Long-Term Targets (2024 - 2		
	Numerator	N/A

Denominator	N/A
Target	# TPM

Note(s)

nization or company that develops energy
ters.

Sector:
Common Problem:
Reference #:
Metric: **year from commercialization within the first 3 years, including new technology vendors, manufacturers, and entrepreneurs.**

		Assumptions and Notes
Baseline (2016)		
	Numerator	N/A
	Denominator	N/A
	Baseline	
2018 Targets		
		N/A
	Denominator	N/A
	Target	5 events total for short-term. Split out to 2 in 2018, 2 in 2019, and 3 in 2020. Data for this metric will be gathered from TPM Implementers annually based on methodology to be determined.
2019 Targets		
	Denominator	N/A
	Target	5 events total for short-term. Split out to 2 in 2018, 2 in 2019, and 3 in 2020. Data for this metric will be gathered from TPM Implementers annually based on methodology to be determined.
2020 Targets		
	Numerator	N/A
	Denominator	N/A
	Target	5 events total for short-term. Split out to 2 in 2018, 2 in 2019, and 3 in 2020. Data for this metric will be gathered from TPM Implementers annually based on methodology to be determined.
Mid-Term Targets (2021 - 2		
	Numerator	N/A
	Denominator	N/A
	Target	Data for this metric will be gathered from TPM Implementers annually based on methodology to be determined.
Long-Term Targets (2024 - 2		
	Numerator	N/A

Denominator	N/A
Target	Data for this metric will be gathered from TPM Implementers annually based on methodology to be determined.

Note(s) / efficiency and demand response technology suitable for inclusion in PA incentive programs 2) "Events" – ET Summit, webinars, and in-person

Sector:	**Emerging Technologies**
Common Problem:	**1 - Need to track event activity**
Reference #:	**257**
Metric:	**ETP-M5: Host 6 outreach events with technology developers with products <5 ye**

		Data	Unit
Baseline (2016)			
	Numerator	N/A	N/A
	Denominator	N/A	N/A
	Baseline	N/A	# TPM
2018 Targets			
		N/A	N/A
	Denominator	N/A	N/A
	Target	See ETP-M4	# TPM
2019 Targets			
	Denominator	N/A	N/A
	Target	See ETP-M4	# TPM
2020 Targets			
	Numerator	N/A	N/A
	Denominator	N/A	N/A
	Target	See ETP-M4	# TPM
Mid-Term Targets (2021 - 2			
	Numerator	N/A	N/A
	Denominator	N/A	N/A
	Target	See ETP-M4	# TPM
Long-Term Targets (2024 - 2			
	Numerator	N/A	N/A

Denominator	N/A	N/A
Target	See ETP-M4	# TPM

Note(s)

- 1) "Technology developers" – Any organization or company that develops energy and in-person meetings, as proposed by ETP implementers.

Sector:
Common Problem:
Reference #:
Metric: **ars from commercialization within the first 3 years, including new technology vendors, manufacturers, and entrepreneurs.**

		Assumptions and Notes
Baseline (2016)		
	Numerator	N/A
	Denominator	N/A
	Baseline	
2018 Targets		
		N/A
	Denominator	N/A
	Target	See ETP-M4
2019 Targets		
	Denominator	N/A
	Target	See ETP-M4
2020 Targets		
	Numerator	N/A
	Denominator	N/A
	Target	See ETP-M4
Mid-Term Targets (2021 - 2		
	Numerator	N/A
	Denominator	N/A
	Target	See ETP-M4
Long-Term Targets (2024 - 2		
	Numerator	N/A

Denominator	N/A
Target	See ETP-M4

Note(s) efficiency and demand response technology suitable for inclusion in PA incentive programs. 2) "Events" – ET Summit, webinars,

Sector:	**Emerging Technologies**
Common Problem:	**1 - ETP is not utilizing other programs to confront barriers to market penetration**
Reference #:	**258**
Metric:	**ETP-M6: 2* projects initiated with cooperation from other internal**
	IOU programs associated with each Technology-focused Pilot
	***This number may be updated according to the results of the TPM development**

		Data	Unit
Baseline (2016)			
	Numerator	N/A	N/A
	Denominator	N/A	N/A
	Baseline	N/A	# projects
2018 Targets			
		N/A	N/A
	Denominator	N/A	N/A
	Target		# projects
	0		
2019 Targets			
	Denominator	N/A	N/A
	Target		# projects
	1		
2020 Targets			
	Numerator	N/A	N/A
	Denominator	N/A	N/A
	Target		# projects
	1		
Mid-Term Targets (2021 - 2			
	Numerator	N/A	N/A
	Denominator	N/A	N/A
	Target	TBD	# projects
Long-Term Targets (2024 - 2			
	Numerator	N/A	N/A

Denominator	N/A	N/A
Target	TBD	# projects

Note(s)

- 1) "Cooperation" is defined as a process by which all parties work towards a mut

Sector:
Common Problem:
Reference #:
Metric:

working group process

		Assumptions and Notes
Baseline (2016)		
	Numerator	
	Denominator	
	Baseline	
2018 Targets		
	Denominator	
	Target	2 total in short-term. Assume 0 in 2018, 1 in 2019, and 1 in 2020.
2019 Targets		
	Denominator	
	Target	2 total in short-term. Assume 0 in 2018, 1 in 2019, and 1 in 2020.
2020 Targets		
	Numerator	
	Denominator	
	Target	2 total in short-term. Assume 0 in 2018, 1 in 2019, and 1 in 2020.
Mid-Term Targets (2021 - 2		
	Numerator	
	Denominator	
	Target	
Long-Term Targets (2024 - 2		
	Numerator	

Denominator	
Target	

Note(s) ıal objective.

Sector: Emerging Technologies
Common Problem: 1 - Need to track Technology-focused Pilot (TFP) TPM efforts
Reference #: 259
Metric: ETP-M7: 3* Technology-focused Pilots initiated as part of the TFP TPM within the
*This number may be updated according to the results of the TPM development

		Data	Unit
Baseline (2016)			
	Numerator	N/A	N/A
	Denominator	N/A	N/A
	Baseline	N/A	# projects
2018 Targets			
		N/A	N/A
	Denominator	N/A	N/A
	Target		# projects
		1	
2019 Targets			
	Denominator	N/A	N/A
	Target		# projects
		1	
2020 Targets			
	Numerator	N/A	N/A
	Denominator	N/A	N/A
	Target		# projects
		1	
Mid-Term Targets (2021 - 2			
	Numerator	N/A	N/A
	Denominator	N/A	N/A
	Target	TBD	# projects
Long-Term Targets (2024 - 2			
	Numerator	N/A	N/A

Denominator	N/A	N/A
Target	TBD	# projects

Note(s)

● 1) A technology-focused pilot (TFP) will identify market barriers for a diverse rang programs . 2) "Technology-focused Pilot"- Pilots that have been proposed by 3Ps ir cooperation with other programs.

Sector:
Common Problem:
Reference #:
Metric: **first 3 years**
working group process

		Assumptions and Notes
Baseline (2016)		
	Numerator	
	Denominator	
	Baseline	
2018 Targets		
	Denominator	
	Target	3 total in short-term. Assume 1 in 2018, 1 in 2019, and 1 in 2020.
2019 Targets		
	Denominator	
	Target	3 total in short-term. Assume 1 in 2018, 1 in 2019, and 1 in 2020.
2020 Targets		
	Numerator	
	Denominator	
	Target	3 total in short-term. Assume 1 in 2018, 1 in 2019, and 1 in 2020.
Mid-Term Targets (2021 - 2		
	Numerator	
	Denominator	
	Target	
Long-Term Targets (2024 - 2		
	Numerator	

Denominator	
Target	

Note(s) e of high-impact technologies through studies, and subsequently breaking down identified barriers in collaboration with other relevant
response to PA needs and that have been approved through the existing ED Ideation Process. These includes TFPs conducted in

Sector:	**Emerging Technologies**
Common Problem:	**1 - Savings are not being tracked**
Reference #:	**260**
Metric:	**ETP-T1: Prior year: % of new measures added to the portfolio that were previous**

		Data	Unit
Baseline (2016)			
	Numerator	TBD	TBD
	Denominator	TBD	TBD
	Baseline	TBD	TBD
2018 Targets			
		TBD	TBD
	Denominator	TBD	TBD
	Target	TBD	TBD
2019 Targets			
	Denominator	TBD	TBD
	Target	TBD	TBD
2020 Targets			
	Numerator	TBD	TBD
	Denominator	TBD	TBD
	Target	TBD	TBD
Mid-Term Targets (2021 - 2			
	Numerator	TBD	TBD
	Denominator	TBD	TBD
	Target	TBD	TBD
Long-Term Targets (2024 - 2			
	Numerator	TBD	TBD

Denominator	TBD	TBD
Target	TBD	TBD

Note(s)

- Per ED: Baseline, methodology, and targets need to be determined by ED evaluati
determined at the same time as part of calculating savings (ETP-T5), and because E
- ETP-T1 through ETP -T8 are in a table titled "Emerging Technologies Tracking (Rep
A of D.18-05-041. PAs had proposed that tracking metrics have no targets in the Ju

Sector:
Common Problem:
Reference #:
Metric: **ly ETP technologies**

		Assumptions and Notes
Baseline (2016)		
	Numerator	
	Denominator	
	Baseline	Per ED, to be determined by an ED study
2018 Targets		
	Denominator	
	Target	Per ED, to be determined by an ED study
2019 Targets		
	Denominator	
	Target	Per ED, to be determined by an ED study
2020 Targets		
	Numerator	
	Denominator	
	Target	Per ED, to be determined by an ED study
Mid-Term Targets (2021 - 2		
	Numerator	
	Denominator	
	Target	Per ED, to be determined by an ED study
Long-Term Targets (2024 - 2		
	Numerator	

Denominator	
Target	Per ED, to be determined by an ED study

Note(s)

ion contractors. ED evaluators can make recommendations on what suitable targets would be. ETP Tracking Metrics 1 – 5 need to be
TP impact and savings are involved, ED evaluators need to make these determinations. Baselines will not be available until then.
orting)" and are separate from the metrics ETP-M1 through ETP-M7 in the table titled "Emerging Technologies Metrics" in Attachment
ly 14, 2017 metrics filing, however the commission ruled that these tracking metrics must have targets

Sector:	**Emerging Technologies**
Common Problem:	**1 - Savings are not being tracked**
Reference #:	**261**
Metric:	**ETP-T2: Prior Year: # of new measures added to the portfolio that were previousl**

		Data	Unit
Baseline (2016)			
	Numerator	TBD	TBD
	Denominator	TBD	TBD
	Baseline	TBD	TBD
2018 Targets			
		TBD	TBD
	Denominator	TBD	TBD
	Target	TBD	TBD
2019 Targets			
	Denominator	TBD	TBD
	Target	TBD	TBD
2020 Targets			
	Numerator	TBD	TBD
	Denominator	TBD	TBD
	Target	TBD	TBD
Mid-Term Targets (2021 - 2			
	Numerator	TBD	TBD
	Denominator	TBD	TBD
	Target	TBD	TBD
Long-Term Targets (2024 - 2			
	Numerator	TBD	TBD

Denominator	TBD	TBD
Target	TBD	TBD

Note(s)

Per ED: Baseline, methodology, and targets need to be determined by ED evaluatio
determined at the same time as part of calculating savings (ETP-T5), and because E
ETP-T1 through ETP -T8 are in a table titled "Emerging Technologies Tracking (Repo
of D.18-05-041. PAs had proposed that tracking metrics have no targets in the July

Sector:
Common Problem:
Reference #:
Metric: **y ETP technologies**

		Assumptions and Notes
Baseline (2016)		
	Numerator	
	Denominator	
	Baseline	Per ED, to be determined by an ED study
2018 Targets		
	Denominator	
	Target	Per ED, to be determined by an ED study
2019 Targets		
	Denominator	
	Target	Per ED, to be determined by an ED study
2020 Targets		
	Numerator	
	Denominator	
	Target	Per ED, to be determined by an ED study
Mid-Term Targets (2021 - 2		
	Numerator	
	Denominator	
	Target	Per ED, to be determined by an ED study
Long-Term Targets (2024 - 2		
	Numerator	

Denominator	
Target	Per ED, to be determined by an ED study

Note(s)

ın contractors. ED evaluators can make recommendations on what suitable targets would be. ETP Tracking Metrics 1 – 5 need to be
TP impact and savings are involved, ED evaluators need to make these determinations. Baselines will not be available until then.
ırting)" and are separate from the metrics ETP-M1 through ETP-M7 in the table titled "Emerging Technologies Metrics" in Attachment A
14, 2017 metrics filing, however the commission ruled that these tracking metrics must have targets.

Sector:	**Emerging Technologies**
Common Problem:	**1 - Savings are not being tracked**
Reference #:	**262**
Metric:	**ETP-T3: Prior year: % of new codes or standards that were previously ETP techno**

		Data	Unit
Baseline (2016)			
	Numerator	TBD	TBD
	Denominator	TBD	TBD
	Baseline	TBD	TBD
2018 Targets			
		TBD	TBD
	Denominator	TBD	TBD
	Target	TBD	TBD
2019 Targets			
	Denominator	TBD	TBD
	Target	TBD	TBD
2020 Targets			
	Numerator	TBD	TBD
	Denominator	TBD	TBD
	Target	TBD	TBD
Mid-Term Targets (2021 - 2			
	Numerator	TBD	TBD
	Denominator	TBD	TBD
	Target	TBD	TBD
Long-Term Targets (2024 - 2			
	Numerator	TBD	TBD

Denominator	TBD	TBD
Target	TBD	TBD

Note(s)

- Per ED: Baseline, methodology, and targets need to be determined by ED evaluati
ETP-T1 through ETP -T8 are in a table titled "Emerging Technologies Tracking (Repc
Metrics" in Attachment A of D.18-05-041. PAs had proposed that tracking metrics h
have targets.

Sector:
Common Problem:
Reference #:
Metric: **ogies**

		Assumptions and Notes
Baseline (2016)		
	Numerator	
	Denominator	
	Baseline	Per ED, to be determined by an ED study
2018 Targets		
	Denominator	
	Target	Per ED, to be determined by an ED study
2019 Targets		
	Denominator	
	Target	Per ED, to be determined by an ED study
2020 Targets		
	Numerator	
	Denominator	
	Target	Per ED, to be determined by an ED study
Mid-Term Targets (2021 - 2		
	Numerator	
	Denominator	
	Target	Per ED, to be determined by an ED study
Long-Term Targets (2024 - 2		
	Numerator	

Denominator	
Target	Per ED, to be determined by an ED study

Note(s)

ion contractor.

rting)" and are separate from the metrics ETP-M1 through ETP-M7 in the table titled "Emerging Technologies

have no targets in the July 14, 2017 metrics filing, however the commission ruled that these tracking metrics must

Sector:	**Emerging Technologies**
Common Problem:	**1 - Savings are not being tracked**
Reference #:	**263**
Metric:	**ETP-T4: Prior Year: # of new codes and standards that were previously ETP techn**

		Data	Unit
Baseline (2016)			
	Numerator	TBD	TBD
	Denominator	TBD	TBD
	Baseline	TBD	TBD
2018 Targets			
		TBD	TBD
	Denominator	TBD	TBD
	Target	TBD	TBD
2019 Targets			
	Denominator	TBD	TBD
	Target	TBD	TBD
2020 Targets			
	Numerator	TBD	TBD
	Denominator	TBD	TBD
	Target	TBD	TBD
Mid-Term Targets (2021 - 2			
	Numerator	TBD	TBD
	Denominator	TBD	TBD
	Target	TBD	TBD
Long-Term Targets (2024 - 2			
	Numerator	TBD	TBD

Denominator	TBD	TBD
Target	TBD	TBD

Note(s)

- Per ED: Baseline, methodology, and targets need to be determined by ED evaluati
1 – 5 need to be determined at the same time as part of calculating savings (ETP-T5
will not be available until then.
- ETP-T1 through ETP -T8 are in a table titled "Emerging Technologies Tracking (Rep
Metrics" in Attachment A of D.18-05-041. PAs had proposed that tracking metrics h
have targets.

Sector:			**Emerging Technologies**
Common Problem:			**1 - Savings are not being tracked**
Reference #:			**264, 265**
Metric:		**ologies**	**ETP-T5: Savings of measures currently in**

		Assumptions and Notes	Lifecycle Net kWh
Baseline (2016)			
	Numerator		TBD
	Denominator		TBD
	Baseline	Per ED, to be determined by an ED study	TBD
2018 Targets			
			TBD
	Denominator		TBD
	Target	Per ED, to be determined by an ED study	TBD
2019 Targets			
	Denominator		TBD
	Target	Per ED, to be determined by an ED study	TBD
2020 Targets			
	Numerator		TBD
	Denominator		TBD
	Target	Per ED, to be determined by an ED study	TBD
Mid-Term Targets (2021 - 2			
	Numerator		TBD
	Denominator		TBD
	Target	Per ED, to be determined by an ED study	TBD
Long-Term Targets (2024 - 2			
	Numerator		TBD

Denominator		TBD
Target	Per ED, to be determined by an ED study	TBD

Note(s)

ɔn contractors. ED evaluators can make recommendations on what suitable targets would be. ETP Tracking Metrics ɔ), and because ETP impact and savings are involved, ED evaluators need to make these determinations. Baselines

ıorting)" and are separate from the metrics ETP-M1 through ETP-M7 in the table titled "Emerging Technologies ıave no targets in the July 14, 2017 metrics filing, however the commission ruled that these tracking metrics must

- Per ED: Baseline, methodology, and targ same time as part of calculating savings (E
- ETP-T1 through ETP -T8 are in a table tit PAs had proposed that tracking metrics ha

Sector:
Common Problem:
Reference #:
Metric: **the portfolio that were supported by ETP, added since 2009. Ex-ante with gross**

		Lifecycle Net kW	Unit
Baseline (2016)			
	Numerator	TBD	TBD
	Denominator	TBD	TBD
	Baseline	TBD	TBD
2018 Targets			
		TBD	TBD
	Denominator	TBD	TBD
	Target	TBD	TBD
2019 Targets			
	Denominator	TBD	TBD
	Target	TBD	TBD
2020 Targets			
	Numerator	TBD	TBD
	Denominator	TBD	TBD
	Target	TBD	TBD
Mid-Term Targets (2021 - 2			
	Numerator	TBD	TBD
	Denominator	TBD	TBD
	Target	TBD	TBD
Long-Term Targets (2024 - 2			
	Numerator	TBD	TBD

Denominator	TBD	TBD
Target	TBD	TBD

Note(s)

ets need to be determined by ED evaluation contractors. ED evaluators can make
TP-T5), and because ETP impact and savings are involved, ED evaluators need to
led "Emerging Technologies Tracking (Reporting)" and are separate from the met
ave no targets in the July 14, 2017 metrics filing, however the commission ruled t

Sector:
Common Problem:
Reference #:
Metric: **and net for all measures, with ex-post where available**

		Assumptions and Notes
Baseline (2016)		
	Numerator	
	Denominator	
	Baseline	Per ED, to be determined by an ED study
2018 Targets		
	Denominator	
	Target	Per ED, to be determined by an ED study
2019 Targets		
	Denominator	
	Target	Per ED, to be determined by an ED study
2020 Targets		
	Numerator	
	Denominator	
	Target	Per ED, to be determined by an ED study
Mid-Term Targets (2021 - 2		
	Numerator	
	Denominator	
	Target	Per ED, to be determined by an ED study
Long-Term Targets (2024 - 2		
	Numerator	

Denominator	
Target	Per ED, to be determined by an ED study

Note(s)

recommendations on what suitable targets would be. ETP Tracking Metrics 1 – 5 need to be determined at the
make these determinations. Baselines will not be available until then.
ics ETP-M1 through ETP-M7 in the table titled "Emerging Technologies Metrics" in Attachment A of D.18-05-041.
hat these tracking metrics must have targets

Sector: Emerging Technologies
Common Problem: 1 - Input from other groups is not being tracked
Reference #: 266, 267, 268, 269
Metric: ETP-T6: Number of ETCC project ideas submitted outside of TPM process by source. [Note: Categories of sources (e.g. PA, n
reported by submitter.] Project source also labeled in the ETP database.

		PA	National Lab	Manufacturer
Baseline (2016)				
	Numerator	N/A	N/A	N/A
	Denominator	N/A	N/A	N/A
	Baseline	N/A	N/A	N/A
2018 Targets				
		N/A	N/A	N/A
	Denominator	N/A	N/A	N/A
	Target			
		1	0	0
2019 Targets				
	Denominator	N/A	N/A	N/A
	Target			
		1	1	1
2020 Targets				
	Numerator	N/A	N/A	N/A
	Denominator	N/A	N/A	N/A
	Target			
		2	1	1
Mid-Term Targets (2021 - 2				
	Numerator	N/A	N/A	N/A
	Denominator	N/A	N/A	N/A
	Target	TBD	TBD	TBD
Long-Term Targets (2024 - 2				
	Numerator	N/A	N/A	N/A

Denominator	N/A	N/A	N/A
Target	TBD	TBD	TBD

Note(s)

- Data for this metric will be gathered from 3P TPM Implementers annually. If ideas are submitted both outside and as part of submitted by more than one source and will be counted under each.
- ETP-T1 through ETP-T8 are in a table titled "Emerging Technologies Tracking (Reporting)" and are separate from the metrics I had proposed that tracking metrics have no targets in the July 14, 2017 metrics filing, however the commission ruled that thes process.

Sector:			**Emerging Technologies**
Common Problem:			**1 - Input from other groups is not being t**
Reference #:			**270, 271, 272, 273**
Metric:	**ational lab, manufacturer, technology incubator, etc.) will be developed collaboratively with ED, and self-**		**ETP-T7: Number of TPM project ideas by judgment.] Project source also labeled in**

		Entrepreneur	Unit	Assumptions and Notes	PA
Baseline (2016)					
	Numerator	N/A	N/A		N/A
	Denominator	N/A	N/A		N/A
	Baseline	N/A	# ETCC project ideas		N/A
2018 Targets					
		N/A	N/A		N/A
	Denominator	N/A	N/A		N/A
	Target		# ETCC project ideas		
		0		2	
2019 Targets					
	Denominator	N/A	N/A		N/A
	Target		# ETCC project ideas		
		0		2	
2020 Targets					
	Numerator	N/A	N/A		N/A
	Denominator	N/A	N/A		N/A
	Target		# ETCC project ideas		
		1		2	
Mid-Term Targets (2021 - 2					
	Numerator	N/A	N/A		N/A
	Denominator	N/A	N/A		N/A
	Target	TBD	# ETCC project ideas		TBD
Long-Term Targets (2024 - 2					
	Numerator	N/A	N/A		N/A

Denominator	N/A	N/A	N/A
Target	TBD	# ETCC project ideas	TBD

Note(s)

the TPM-aligned research planning process, it can be reported under both ETP-T6 and ETP-T7. Ideas may be

:TP-M1 through ETP-M7 in the table titled “Emerging Technologies Metrics” in Attachment A of D.18-05-041. PAs
e tracking metrics must have targets. "Submitted" refers to an idea submitted through a formal submission

- Data for this metric will be gathered fro
more than one source and will be counte
- ETP-T1 through ETP-T8 are in a table titl
proposed that tracking metrics have no ta

Sector:
Common Problem: racked
Reference #:
Metric: source, if available [Note: Categories of sources (e.g. PA, national lab, manufacturer, technology incubator, etc.) will be dev
the ETP database.

		National Lab	Manufacturer	Entrepreneur
Baseline (2016)				
	Numerator	N/A	N/A	N/A
	Denominator	N/A	N/A	N/A
	Baseline	N/A	N/A	N/A
2018 Targets				
		N/A	N/A	N/A
	Denominator	N/A	N/A	N/A
	Target			
		0	0	0
2019 Targets				
	Denominator	N/A	N/A	N/A
	Target			
		1	1	0
2020 Targets				
	Numerator	N/A	N/A	N/A
	Denominator	N/A	N/A	N/A
	Target			
		1	1	1
Mid-Term Targets (2021 - 2				
	Numerator	N/A	N/A	N/A
	Denominator	N/A	N/A	N/A
	Target	TBD	TBD	TBD
Long-Term Targets (2024 - 2				
	Numerator	N/A	N/A	N/A

Denominator	N/A	N/A	N/A
Target	TBD	TBD	TBD

Note(s)

m 3P TPM Implementers annually. If ideas are submitted both outside and as part of the TPM-aligned research planning proces
l under each.
ed "Emerging Technologies Tracking (Reporting)" and are separate from the metrics ETP-M1 through ETP-M7 in the table titled
rgets in the July 14, 2017 metrics filing, however the commission ruled that these tracking metrics must have targets. "Submitt

Sector:
Common Problem:
Reference #:
Metric: eloped collaboratively, and attributed by ETP based on ETP's expert

		Unit	Assumptions and Notes
Baseline (2016)			
	Numerator	N/A	
	Denominator	N/A	
	Baseline	# TPM project ideas	
2018 Targets			
		N/A	
	Denominator	N/A	
	Target	# TPM project ideas	
2019 Targets			
	Denominator	N/A	
	Target	# TPM project ideas	
2020 Targets			
	Numerator	N/A	
	Denominator	N/A	
	Target	# TPM project ideas	
Mid-Term Targets (2021 - 2			
	Numerator	N/A	
	Denominator	N/A	
	Target	# TPM project ideas	
Long-Term Targets (2024 - 2			
	Numerator	N/A	

Denominator	N/A
Target	# TPM project ideas

Note(s)

s, it can be reported under both ETP-T6 and ETP-T7. Ideas may be submitted by

"Emerging Technologies Metrics" in Attachment A of D.18-05-041. PAs had
ed" refers to an idea submitted through a formal submission process

Sector:	**Emerging Technologies**
Common Problem:	**1 - Output from ETP is not explicitly aligned with long-term goals**
Reference #:	**274**
Metric:	**ETP-T8: Mapping of ETP projects and technologies aligned with specific statewide readiness" in addition to "a list of ETP projects aligned with ZNE-readiness are as**

		Data	Unit
Baseline (2016)			
	Numerator	N/A	N/A
	Denominator	N/A	N/A
	Baseline	N/A	# lists
2018 Targets			
		N/A	N/A
	Denominator	N/A	N/A
	Target		# lists
		1	
2019 Targets			
	Denominator	N/A	N/A
	Target		# lists
		1	
2020 Targets			
	Numerator	N/A	N/A
	Denominator	N/A	N/A
	Target		# lists
		1	
Mid-Term Targets (2021 - 2			
	Numerator	N/A	N/A
	Denominator	N/A	N/A
	Target		# lists
		1	
Long-Term Targets (2024 - 2			
	Numerator	N/A	N/A

Denominator	N/A	N/A
Target		# lists
	1	

Note(s)

- Data for this metric will be gathered from 3P TPM Implementers. An ETP project
- ETP-T1 through ETP-T8 are in a table titled "Emerging Technologies Tracking (Rep

D.18-05-041. PAs had proposed that tracking metrics have no targets in the July 14 be developed and updated in collaboration with ED as needed. Projects are consid

Sector:
Common Problem:
Reference #:
Metric: **goals, with specificity as to what aspect of each goal it is fulfilling. For example: "4 ETP projects are aligned with statewide ZNE-follows:" Goals will also be labeled in the ETP database. A list of eligible goals will be developed collaboratively with ED.**

		Assumptions and Notes
Baseline (2016)		
	Numerator	
	Denominator	
	Baseline	
2018 Targets		
	Denominator	
	Target	3 total in short-term. 1 per year.
2019 Targets		
	Denominator	
	Target	3 total in short-term. 1 per year.
2020 Targets		
	Numerator	
	Denominator	
	Target	3 total in short-term. 1 per year.
Mid-Term Targets (2021 - 2		
	Numerator	
	Denominator	
	Target	Average per year
Long-Term Targets (2024 - 2		
	Numerator	

Denominator	
Target	Average per year

Note(s)

may align with multiple statewide goals and will be listed under each goal. **

orting)" and are separate from the metrics ETP-M1 through ETP-M7 in the table titled "Emerging Technologies Metrics" in Attachment A of , 2017 metrics filing , however the commission ruled that these tracking metrics must have targets. The "statewide goals" will be tracked will ered "initiated" when project budget has been approved and funding allocated

Category	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Lifecycle ex-ante Therm gross	480,467,409	522,106,297	693,662,150	726,398,072	815,488,291	904,578,510	890,489,936	955,961,779	939,593,818	925,505,244
Lifecycle ex-ante Therm net	422,174,997	475,290,840	581,627,763	603,160,246	681,047,027	758,933,807	744,845,233	787,910,199	777,143,957	763,055,383
C&S Lifecycle	310,139,719	375,159,806	366,302,933	366,302,933	422,657,230	479,011,528	464,922,953	464,922,953	464,922,953	450,834,379
Program Lifecycle ex-ante Therm gross	170,327,690	146,946,491	327,359,217	360,095,139	392,831,061	425,566,982	425,566,982	491,038,826	474,670,865	474,670,865
Program Lifecycle ex-ante Therm net	112,035,278	100,131,034	215,324,830	236,857,313	258,389,796	279,922,279	279,922,279	322,987,245	312,221,004	312,221,004
Gross Therm for Portfolio Level	38,456,156	39,877,543	52,000,000	55,000,000	61,000,000	67,000,000	66,000,000	73,000,000	71,000,000	70,000,000
Gross Therm without C&S	16,442,593	12,517,503	26,000,000	29,000,000	31,000,000	33,000,000	33,000,000	40,000,000	38,000,000	38,000,000
Net Therm for Portfolio Leve	32,419,727	35,991,671	46,000,000	48,000,000	54,000,000	60,000,000	59,000,000	63,000,000	62,000,000	61,000,000
Net Therm without C&S	10,406,164	8,631,631	20,000,000	22,000,000	24,000,000	26,000,000	26,000,000	30,000,000	29,000,000	29,000,000
C&S Net Therm	22,013,563	27,360,040	26,000,000	26,000,000	30,000,000	34,000,000	33,000,000	33,000,000	33,000,000	32,000,000

Source: net therm savings taken from D.17-09-025
2016 and 2017 data reported in CEDARS