SOUTHERN CALIFORNIA GAS COMPANY ADVANCED METER SEMIANNUAL REPORT

February 28, 2017

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Southern California Gas Company Advanced Meter Semiannual Report

Introduction

This is the eighth Semiannual Report ("Report") regarding the progress of Southern California Gas Company's ("SoCalGas") Advanced Meter project. In Decision ("D.") 10-04-027, the California Public Utilities Commission ("CPUC" or "Commission") authorized the project. Ordering Paragraph 5 required the following reporting requirements for SoCalGas:

"Southern California Gas Company shall establish a system to track and attribute program costs and projected savings from conservation. Based on this tracking system, Southern California Gas Company shall submit a report to the Director of the Commission's Energy Division semiannually, tracking the gas conservation impacts of the advanced metering infrastructure project to date. These reports shall serve as a forum to adjust, as necessary the elements laid out in the final outreach plan described above. We expect that customer outreach, education and communications will continue to evolve and improve as SoCalGas conducts customer research, monitors customer reaction to new AMI technology and various customer usage presentation tools, and incorporates feedback from these activities into its AMI outreach and education activities. If the report shows that the company is falling short of its projections, it shall submit revisions to its conservation plan to increase awareness, participation, and durability of conservation actions among its customers. The semiannual reports and any revisions to the advanced metering infrastructure outreach and conservation plan shall be submitted to the director of the Commission's Energy Division and served on the most recent service list for this proceeding. Additional costs incurred in order to improve conservation response will be funded out of contingency funds, or otherwise subject to the risk sharing mechanism authorized in Ordering Paragraph 2."

Chapter 1 - Project Overview and Summary

In addition to the specific requirements identified in D.10-04-027, this Report provides overall status of SoCalGas' Advanced Meter project through December 31, 2016 and builds upon previous Reports by highlighting project changes and activities that have taken place since July 1, 2016. Previous Report filings may be accessed on SoCalGas' website.¹

The Advanced Meter infrastructure consists of two primary components – a meter transmission unit ("MTU" or "module") attached to SoCalGas meters, and a communications network consisting of data collection units ("DCU") installed across the SoCalGas service territory. Data from the modules is communicated to the DCUs and then transmitted to SoCalGas' back-office systems. Operational highlights as of December 31, 2016 include:

¹ <u>http://www.socalgas.com/regulatory/A0809023.shtml.</u>

- About 246 SoCalGas employees installing modules.
- Nearly 5.8 million meter modules installed representing 96% of the total meters to be upgraded.
- 4,108 data collector units (DCUs) installed and functioning On-Air representing nearly 89% of the estimated 4,600 DCUs planned. These DCUs are fully installed in 176 of the 221 cities and counties located within SoCalGas' service territory (79% of total).
- Approximately 99 percent of the installed modules have been deemed 'Billing Ready' and are now used or ready for billing customers.

In November 2016, SoCalGas launched its fourth targeted heating season conservation campaign leveraging Advanced Meter-enabled usage data. This campaign is the final in the series of four conservation "Test and Learn" campaigns conducted over the course of the Advanced Meter project. It incorporates the lessons learned and key findings from the prior three heating season campaigns.

The goals of these consecutive conservation campaigns are demonstrating how to best meet the one percent energy savings goal² associated with the Advanced Meter rollout and tracking the resulting conservation savings. Of significance in the prior 2015-2016 campaign was that every one of the thirteen new conservation treatments tested produced statistically significant gas savings. These new treatments resulted in savings of over 1.4% total during the 2015-2016 fall/winter period.³ This is an increase in savings vs. savings rates for the successful⁴ treatments tested in the two prior heating season campaigns, and shows continued progress towards the conservation goal. Continued savings effects were also realized during 2015-2016 for several of the treatments tested during the prior two fall/winter campaigns. Overall, the new and continued successful treatments tested during the last 2015-2016 campaign produced gas savings of almost 1.5%.

For the final fall/winter conservation campaign, SoCalGas strives to enhance the most successful treatments from prior campaigns with the goal of further optimizing their savings rates, positive customer impact and cost-effectiveness.

A comprehensive evaluation of the results of the fourth campaign currently underway, as well as additional findings from the treatments tested in the prior campaigns, will be provided in the August 2017 report.

The Advanced Meter project is currently meeting its schedule, budget and major project milestones; however, continued permitting and construction challenges may impede completing the network in accordance with D.10-04-027. SoCalGas has implemented a

² This energy savings goal specifically refers to 1% of total *residential* gas usage.

³ Four out of seven treatments tested during the 2014-2015 heating season campaign generated savings of about one percent total. Four out of eleven treatments tested during the 2013-2014 heating season campaign generated savings of about 1.3 percent.

⁴ Successful treatments are comprised of the subset of treatments tested that were successful in producing statistically significant usage reductions.

proactive public outreach strategy to educate and inform impacted residents, businesses, and municipalities of network installation to help mitigate potential concerns. As noted in previous Reports, despite extensive engagement, select municipalities continue to require SoCalGas to secure discretionary permits refuting the CPUC's preemptory jurisdiction over utility facilities. This discretionary permitting process, which is not agreed to by SoCalGas, could provide municipalities the unilateral right to significantly modify the planned location or design of the DCUs and even preclude the installation of DCUs by the utility.

Although there has been progress in select areas, by continuing to assert their position municipalities are considerably delaying or preventing the network installation timeline for approximately 81 DCUs or 2% of a total of 4,600 planned DCUs. The inability to deploy the necessary infrastructure in these jurisdictions will likely result in SoCalGas having to maintain separate meter reading, communications, data processing and billing systems functions for longer than was anticipated in D.10-04-027 and may negatively impact expected customer operational and conservation benefits pursuant to Sections 3.C, 3.D and 9 of this report.

As communicated to the Commission in the preface to the August 2016 report, SoCalGas discovered a small percentage of Advanced Meter modules producing inaccurate digital reads of gas usage. The problem was limited to approximately 0.15% of the installed population of MTUs. These devices are issuing multiple false alarms and SoCalGas has implemented a plan to replace all defective MTUs, address any authorized billing corrections, and communicate with regulators, customers and stakeholders. During the course of remediation a subsequent issue was identified with MTUs in curb meter vaults. SoCalGas is working with the manufacturer to resolve the issue; until then, these meters will be manually read to minimize any billing impacts to customers. Additionally, SoCalGas is working with the vendor on the feasibility of diagnostic tools to identify malfunctioning modules prior to or at installation. The total financial impact of the issue is unknown at this time, but SoCalGas will be seeking recovery for the full labor cost from the vendor.

Chapter 2 - Module Installation and Network Construction Status

2.A Module Installation Status

SoCalGas has installed 5,796,873 modules through the end of December 2016, with its first installation dating back to October 2012. Table 1 displays the installations performed by Advanced Meter Mass Install personnel and identifies installations completed by other SoCalGas personnel.

Appendix A provides the latest timeline of planned warehouse opening and closings.

	Module Only	Meter Change w/Module	Total
Advanced Meter Installations	4,186,494	1,202,406	5,388,900
Other SoCalGas Personnel		407,973	407,973
Total Installations	4,186,494	1,610,379	5,796,873

 Table 1

 Module Installations by Personnel Group

About 93 percent of the modules are being installed by Advanced Meter personnel, with approximately 7 percent being installed by other SoCalGas personnel. Other SoCalGas personnel are involved when the installation requires extensive modifications to the existing meter configuration, such as installing the modules on complex industrial and commercial meters; replacing existing curb meters with new curb meters containing a pre-installed module; and when meters are changed through the normal course of business.

As Table 1 displays, over 72 percent of the modules were installed on existing meters, while nearly 28 percent of the time, the meter was replaced with a new meter with a module already installed.

Installation teams work out of warehouses leased specifically for the Advanced Meter project. As of December 31, 2016, there were 246 installers employed. Table 2 provides an overview of the installation workforce for each of the warehouses open through December 2016.

Warehouse	Number of Employees
Rancho Cucamonga	68
South Gate	58
Los Angeles	68
Anaheim	52
Total	246

Table 2
SoCalGas Installation Workforce by Warehouse

Throughout the project, the Advanced Meter team has experienced some injuries and incidents. Table 3 displays safety results from January through December 2016. SoCalGas aspires to have zero incidents and has taken a proactive approach in providing its Advanced Meter team with additional safety and training resources. SoCalGas continues to have an additional day dedicated to safety in the installer training curriculum and as part of its "Safe and Sound" Safety Campaign, SoCalGas continues to create and share short safety films to promote safe behavior at the workplace and at home.

Table 3
Advanced Meter Safety Incidents
January 1, 2016 through December 31, 2016

	Number of Incidents	Rate*
Occupational Safety & Health Administration ("OSHA")	26	5.54
Controllable Motor Vehicle Incidents ("CMVI")	23	4.87
Lost Time Incidents ("LTI")	6	1.28

*OSHA Rate is the number of incidents per 200,000 hours worked

- *CMVI Rate is the number of incidents per million miles driven
- *LTI Rate is per 100 workers

2.B Communication Network Construction Status

The communications network of the Advanced Meter system is designed to ensure that SoCalGas customers receive their hourly consumption data. It consists of DCUs deployed across the SoCalGas service territory that receive the meter reading data from the modules installed on each meter. Most modules transmit twelve hourly meter reads four times a day to at least three DCUs. Each module communicates for less than two minutes per year. The data is encrypted and transmitted across a licensed frequency from the module to the DCU.

SoCalGas continues to refine the network to improve system performance and based on the latest propagation study provided by Aclara, the technology vendor, the project plans to install 4,600 DCUs. The actual number of DCUs to be installed is determined by a two-step process:

- The specific DCU locations, referred to as design points, are determined based on the propagation study which takes into account the location of the modules on the six million meters, the topography of the surrounding area, and the influence of the environment on the transmission of the radio signal. The DCUs can be placed within a 500 foot radius of the design point.
- 2. After these DCUs are installed, SoCalGas evaluates the performance of the network and identifies gaps in the network. SoCalGas then installs additional DCUs to remediate these deficiencies in performance.

SoCalGas' plan is to install DCUs prior to the scheduled module installation so that data can be received soon after the module is installed. Overall, SoCalGas has achieved this goal. Table 4 displays the status of the SoCalGas network as of December 31, 2016.

DCU Status	Number of DCUs	Percent of DCUs
Installed	4,108	89.3%
On – Air	4,107	89.3%
Ready to Construct	8	0.2%
Negotiating with Local Governments/Other Third Parties ⁵	293	6.4%
Not Started	191	4.1%
Total Planned Installations	4,600	100%

Table 4Status of DCUs through December 31, 2016

Eighty-nine percent of the network has been constructed or is ready to construct. By December 31, 2016, SoCalGas has installed 4,108 DCUs with an additional 8 DCUs ready for construction. Of the 4,108 installed, 4,107 DCUs have been commissioned on-air and are receiving reads from installed MTUs. SoCalGas continues to negotiate with local governments and third parties to install the remaining DCUs in the network. Table 5 displays the locations of installed DCUs to date.

DCU Location	Installed DCUs
SoCalGas Owned Poles in	
SoCalGas Facilities	65
Public Right of Way	2,602
Caltrans Right of Way	34
Private Easement	23
Total	2,724
Attached to Third Party Assets	
Los Angeles Bureau of Street Lighting	612
SCE Street Lights	357
PG&E Street Lights	27
SDG&E Street Lights	43
Other Cities Street Lights	285
Other Public/Private Assets	60
Total	1,384
Total DCUs Installed	4,108

Table 5 Location of Installed DCUs

⁵ Includes municipalities refuting the CPUC's preemptory jurisdiction over utility facilities.

To date SoCalGas has installed DCUs on a SoCalGas owned pole in the public right of way under its franchise 66 percent of the time. The second most common method has been to install DCUs on local government-owned street lights.

When a DCU is attached to a third party owned asset, SoCalGas negotiates a contract with the asset owner which usually includes:

- Fees to lease the space on the asset; and,
- Energy rates for the electricity to power the DCU.

SoCalGas has executed contracts with the City of Los Angeles Bureau of Street Lights ("BSL"), Pacific Gas & Electric Company ("PG&E"), Southern California Edison Company ("SCE"), San Diego Gas & Electric Company ("SDG&E"), and has reached contract agreements with 143 cities and 6 counties.⁶

Of the 12 counties and 211 cities in the SoCalGas service territory, SoCalGas has finished installing DCUs in 7 counties and in 176 cities/communities.⁷ SoCalGas is in active negotiations with several cities and counties to continue installing the remaining DCUs. A limited number of cities and counties have been reopened due to network optimization.⁸ To ensure area coverage, the project has reassessed cities and counties that have been completed with the original design and added DCUs where necessary.

With 4,108 DCUs constructed, SoCalGas has received 182 complaints and 90 inquiries, including concerns about the DCUs aesthetics, glare, or location. In each case, SoCalGas contacted the complaining party to resolve the complaint. As a result of customer concerns, SoCalGas has relocated 83 DCUs. Otherwise, the concerns have been resolved without relocating the DCU.

Where the DCU design point falls entirely within private property, SoCalGas negotiates easements with the private property owner(s). Installations of this type usually require a contract to secure the right to locate on the third party property.

When SoCalGas installs a DCU on its own pole, the DCU is solar-powered. When installed on a street light, the DCU is most often powered by electricity from the street light. Given the preponderance of new poles, most of the DCUs are solar powered. Table 6 shows the breakdown between solar and A/C powered DCUs.

⁶ Pursuant to Commission Resolution ESRB-1 dated May 10, 2013 (SCE), Resolution ESRB-2 dated June 27, 2013 (SDG&E) and Resolution ESRB-3 dated June 27, 2013 (PG&E) SoCalGas is able to permanently attach the DCUs to these electric utilities' street lights.

⁷ Appendix B provides a list of the counties and cities with fully installed DCUs as of December 31, 2016.

⁸ Appendix C provides a list of the counties and cities that have been reopened.

Table 6Power Source for DCUs

Installed DCUs	Solar Powered	AC Powered
4,108	2,808	1,300

Chapter 3 - System Performance

Two key indicators of the overall Advanced Meter system performance are the performance of the network with respect to the delivery of hourly data for billing and online presentation purposes, and the resulting billing data-related performance. Additional improvements to SoCalGas' service delivery are also being realized as a result of meter read automation and enhanced data analytics capabilities enabled by the Advanced Meter system. Extended uses of the Advanced Meter system through a network sharing capability also have the potential to provide additional operational and conservation benefits to water agencies and their customers within SoCalGas' service territory.

3.A Network Performance

The most basic measure of system performance is to measure the data delivered as a percentage of the expected data to be delivered. This has direct impacts to both billing and the presentment of hourly gas consumption data to customers. In a perfect system, SoCalGas would receive data for every customer for every hour, each day of the year. To provide this data, the modules must communicate with the DCUs and the DCUs must transmit the data to SoCalGas back office systems 100 percent of the time.

Table 7 displays the breakdown of modules that have successfully communicated with SoCalGas' back office systems.

Module Communication Status	Modules Installed	Percent Installed With Network
Total Modules Installed	5,796,873	-
Modules installed but not yet communicating with HE systems ⁹	18,302	-
Delivering 100 Percent of Expected Reads	5,478,040	94.8
Missing 1-12 Reads	175,937	3.0
Missing More Than 12 Reads ¹⁰	107,426	1.9
Missing All Reads	17,168	0.3

Table 7Module Communication Status

⁹ Newly installed MTUs that have not yet established communication with a DCU and transmitted 24 hours of reads

¹⁰ Missing more than 12 reads but at least one read has been communicated.

SoCalGas generally installs modules where the network is available; however, some exceptions to installing outside of an available network include instances when new business meters are connected and routine meter changes are being performed. Additionally, when a meter fails in the field, it is replaced with an integrated meter and module, regardless of whether the network is installed or not.

As illustrated in Table 7, approximately 95 percent of the installed modules are successfully communicating all of a customer's hourly data on a monthly basis. About 3 percent of the modules are missing 1-12 reads, which means that they have had only 1 or 2 unsuccessful communications per month. That is, one or two six-hour periods have not been successfully communicated to the SoCalGas back office systems. SoCalGas does not consider a module performing at this level to be problematic for billing as enough hourly data is being received for these purposes.

About 2 percent of the modules are missing more than 12 reads but have communicated at least one read. SoCalGas continues to examine module modifications and network enhancements to improve the performance of these modules.

3.B Billing Data Performance

The Advanced Meter modules replace the manual reads with an automated read, with the expectation that the system will produce more accurate reads (no data entry mistakes) and fewer estimated reads (meter access problems are largely eliminated).

Table 8 displays the progression of modules from installation to actual use for billing.

Modules Installed as of December 31, 2016	5,796,873
Modules in 'Billing Ready' Status	5,743,983
Advanced Meter Reads Requested for Billing	5,713,492
Billing Data Provided by Advanced Meter	5,707,648
Billing Data Not Provided by Advanced Meter	5,844
Percent Provided by Advanced Meter – Actual Read	99.84%
Percent Provided by Advanced Meter – Estimated Read	0.05%
Percent Not Provided by Advanced Meter	0.11%

Table 8 Advanced Meters Utilized for Billing

Approximately 99 percent of the installed modules have been deemed 'Billing Ready' and are now used or ready for billing customers. Of the remaining one percent, most are still in the process of completing one of the test elements needed to become 'Billing Ready.' Others are located in areas with incomplete DCU coverage, or are located in areas with insufficient module density to support conversion to Advanced Meter billing. Modules in areas with network coverage which do not pass the 'Billing Ready' tests are monitored and, if necessary, replaced. They may also point to insufficient network coverage or DCU problems, which are then remediated.¹¹

For the Billing Ready modules, the system provides a high percentage of actual reads. The system also provided 0.05 percent of reads which were 'estimated reads' based substantially on reads received earlier in the month, rather than on a particular designated day. Only about 0.11 percent of the reads could not be provided by the Advanced Meter system.

In July 2013, SoCalGas implemented software that enabled the utilization of automated reads for the initiation of new service. With Advanced Meter automation, a field visit to collect a customer's starting read was no longer necessary for turn-on orders that did not require entry into the home. SoCalGas' Customer Service Field organization has seen a reduction of over 2,224,949 orders since the implementation of the automated reads for the initiation of new service.

3.C Service Delivery Enhancements resulting from Enhanced Data Analytics

As the Commission articulated in the AMI decision,¹² the Advanced Meter system "provides [a] system-wide technology platform with the ability to expand operating benefits as new applications emerge." In areas where the communications network is fully deployed, SoCalGas is leveraging Advanced Meter-enabled data analytics and technology by integrating data to develop algorithms that support the continued safe and reliable delivery of natural gas to its customers. These enhanced data analytics enable identification of unusual gas consumption patterns at customer facilities.

Though in the exploratory phase, this new and more granular awareness of energy data utilization is uncovering new opportunities and benefits potential. Leveraging the Advanced Meter network could result in faster identification of abnormally high gas usage, which enables SoCalGas to identify, investigate, and respond to potential safety situations quicker. By discovering abnormally high gas usage and notifying customers, SoCalGas can reduce methane emissions at customer facilities saving energy and improving air quality while also reducing the financial burden on customers from higher usage.

The Advanced Meter team assesses unusual consumption patterns on closed accounts using a Per Day Average and in some cases will look at the hourly reads to conduct further research. During the exploratory phase of SoCalGas' enhanced data analytics, the following results have been achieved. Table 9 summarizes the results of the 4,332 exploratory service orders fielded through December 31, 2016.

¹¹ As referenced in Chapter 2, additional DCUs may have to be added to improve system performance.

¹² D. 10-04-027, page 40.

Table 9	
Gas consumption data analytics results through December 31,	2016

Findings from completed field visits (project to date)	Number of field visits	Percent
Total field visits generated by consumption analytics awareness	4,332	
Gas services closed by SoCalGas field technician due to excessive registration, awaiting resolution. Resolution takes place at the time of the follow-up field visit to reinstate gas service.	1,785	41.20%
Gas leak found by SoCalGas field technician	736	16.99%
Hot water leaks where the hot water heater was in continuous demand	725	16.74%
Gas or hot water leaks corrected by the customer as a result of SoCalGas field visit	691	15.95%
Abnormal gas usage resulting from an appliance in use for an extended period of time (e.g., appliances unintentionally left on).	395	9.12%

Leveraging Advanced Meter consumption analytics is a component of a more comprehensive set of processes and inspections aimed at ensuring public safety and SoCalGas expects that, as it continues to build out enhanced analytics capabilities enabled by the Advanced Meter system, further customer service and safety benefits will accrue to its customers. More rapid detection and resolution of gas and hot water leaks provides enhanced safety for customers and their communities, as well as provides energy and financial savings, reduced greenhouse gas emissions, and conservation of our scarce water supplies.

3.D Extending the Use of the Advanced Meter Network

As articulated in our AMI Application, SoCalGas recognizes the State's priority and urgency in encouraging and enabling water conservation and as such included the requirement for an AMI technology capable of reading water meters. This network sharing capability has the potential to provide significant operational and conservation benefits to water agencies and their customers within SoCalGas' service territory.

In order to operationally evaluate the feasibility of the "Shared Network" concept, SoCalGas has established one-year pilots to be conducted by Aclara and SoCalGas with a limited number of water utilities. Three municipal water utilities are participating in this pilot, and as of December 31, 2016 there were approximately 2,000 water MTUs successfully transmitting data from municipal water utility MTUs over the SoCalGas Advanced Meter network.

SoCalGas, along with the other Energy IOUs in California, were asked to develop pilot proposals¹³ to identify technical issues with a Commission-regulated water corporation "piggybacking" on electric corporation and/or gas corporation AMI infrastructure,¹⁴ or to structure new pilots to explore different questions if pilots on AMI were already underway.¹⁵ As part of this effort, SoCalGas submitted a proposal which in addition to network sharing, includes the identification and evaluation of potential hot water leaks based on analytics of both gas and water AMI data, as well a study of the potential benefits associated with hot water leak detection and resolution. This proposal was approved by the CPUC on June 9, 2016 with D.16-06-010, and SoCalGas has begun work with a technology vendor (Aclara), a 3rd party analytics vendor (Valor Water Analytics), and two separate Commission-regulated water utilities (San Gabriel Valley Water Company, California American Water) on this effort¹⁶, referred to as the Water Energy Nexus (WEN) AMI Pilots.

As of December 31, 2016, water MTU deployment is complete for both utilities, with a total of approximately 1,800 water MTUs installed between them. The analytics period kicked off in Q4 of 2016 for the San Gabriel Valley Water Company WEN AMI Pilot, and so far one hot water leak has been confirmed in the pilot. The analytics period for the California American Water WEN AMI Pilot will begin in Q1 2017.

In addition to the Advanced Meter network being shared by external water utilities, other groups within SoCalGas are leveraging the network. As part of a pilot project by the Pipeline Safety Enhancement Plan (PSEP) group, data from a sensor device to detect, measure and monitor methane in the area near a transmission pipeline is being transmitted over the Advanced Meter network. As of December 31, 2016, eleven of these methane sensor devices have been installed in the field and are successfully communicating over the Advanced Meter network with the ability to provide remote alarm registration and processing when the methane-in-air concentration, as measured by the sensors, exceeds limits established for our testing period.

Chapter 4 - Financial Status

To track expenses during the project, Ordering Paragraph 7 of the D.10-04-027, stated:

"Southern California Gas Company shall file an advice letter no later than 30 days from the effective date of this decision, establishing a balancing account and detailing the cost recovery mechanism in conformance with this decision. Southern California Gas Company is authorized to recover deployment costs up to \$1.0507 billion in this account, plus additional amounts, if any, consistent with the terms and conditions of the Risk Sharing Mechanism approved in Ordering Paragraph 2."

¹³ D.15-09-023, p. 46.

¹⁴ D.15-09-023, p. 47.

¹⁵ D.15-09-023, p. 47.

¹⁶ Advice No. 5014

On August 4, 2010, the CPUC approved AL 4110, effective April 8, 2010, which established the Advanced Meter Infrastructure Balancing Account.

The CPUC approved budget of \$1,050 million for the SoCalGas Advanced Meter project was augmented by re-directing \$13.5 million of previously approved General Rate Case funding for a Remote Automated Meter Reading ("RAMR") project. SoCalGas halted the implementation of its RAMR project, a drive-by meter reading system, when its Advanced Metering Infrastructure ("AMI") application was submitted, and in the AMI application requested that this funding be re-directed to the Advanced Meter project. In D.10-04-027, the CPUC approved this request.^[1] The total budget for the SoCalGas Advanced Meter project is \$1,064 million, which included a contingency fund of \$68.7 million.

The sequencing of the spending to date is typical of the pattern for many major projects. The early years of the project were spent organizing the large project team; developing new business processes; and building and implementing the information systems that support the construction of the DCUs and installation of the modules. SoCalGas' plan contemplated that the DCUs would be constructed prior to the installation of the modules so that the modules would be effective in delivering benefits to customers. As indicated in Chapter 2, SoCalGas began installing its DCUs in June 2012 and its modules in October 2012.

^[1] A.08-09-023, Prepared Direct Testimony of Edward Fong, page 15.

Table 10

Financial Results (in \$Thousands) Recorded 2010 through December 2016

	2010	2011	2012	2013	2014	2015	2016	Project to Date
Project Management Office	2,619	6,477	6,634	4,945	4,023	3,415	3,006	31,120
Meters, Modules & Installation	120	3,718	28,067	116,030	183,117	170,210	58,829	560,092
Network	777	3,744	14,429	23,805	18,796	15,306	14,572	91,429
Information Technology	6,011	16,873	21,931	16,015	10,491	11,108	6,248	88,677
Customer Outreach	324	1,027	2,085	5,502	5,195	4,786	3,999	22,917
Employee Awareness	65	3,078	3,732	2,088	1,051	1,087	752	11,853
Support Organizations*	303	-	1,162	3,576	4,517	4,684	13,470	27,711
Overheads & AFUDC	2,382	10,828	23,663	33,812	40,499	32,135	21,264	164,583
Total	12,601	45,745	101,594	205,746	268,807	242,732	122,140	998, 382

* Support organizations are comprised of SoCalGas departments outside of Advanced Meter that are funded by the project for project related work or for work identified in business case. This includes field work related to advancing our larger meters (primarily commercial and industrial). This work accounts for the large increase in 2016 support organization spend.

Table 10 displays the Advanced Meter spending through December 31, 2016, by the major project activities. The purchase and installation of meters and modules continue to be the primary source of spending at approximately \$560 million project to date. The next large areas of spend are in information systems and the construction of the communication network with approximately \$89 and \$91 million in spend, respectively. Although the project has fully allocated the authorized contingency SoCalGas believes the project will be delivered within the approved budget.

Chapter 5 - Meter Reading Work Force Impacts

The Meter Reading work force is the most significantly impacted by the Advanced Meter project as Meter Reading positions will all but be eliminated by the project.¹⁷ Both SoCalGas and the CPUC are concerned about these impacts. The Commission specifically addressed this concern. Ordering Paragraph 1 of the D.10-04-027 states:

"Southern California Gas Company shall supplement by \$1 million, its funding for workforce retention and retraining. This fund is established to better protect the employment interests of Southern California Gas Company's meter reading workforce

¹⁷ Some personnel may continue to manually read meters in support of the CPUC authorized Opt-Out program.

and should be used to extend severance, vocational training, and other transitional opportunities to employees affected by the decision to pursue advanced metering infrastructure."

In response to this direction, SoCalGas set aside funding in its Enhanced Educational Assistance Fund specifically to support the Meter Reading personnel in place in April 2010. As of December 31, 2016, meter readers had been reimbursed approximately \$103,400 through this fund.

While meter readers have been active in seeking employment opportunities within SoCalGas the fund has not been heavily utilized, so as part of our continuing efforts to support our employees' transition to potential job opportunities, SoCalGas has expanded the retention and retraining efforts to include skills orientation workshops. These workshops are designed to familiarize employees with the mechanical and technical skills associated with piping, tools usage, natural gas appliance and distribution system construction work. The workshops are voluntary and are offered on Saturdays.

The orientation workshops offer transitional skills that could be applied toward job opportunities within and outside of SoCalGas. The target employee group has also been expanded to include all current meter reading employees as well as AMI Field Representatives. All of these employees will be affected when Advanced Meter implementation is completed in 2017.

SoCalGas has allocated \$42,400 from the authorized funding from 4th Quarter 2014 through 2016 to provide these workshops for employees. SoCalGas will continue to offer enhanced educational assistance reimbursement to the remaining eligible meter reading employees.

Table 11 displays the current status of those Meter Reading personnel who were employed in April 2010, when the project was approved by the CPUC.

Meter Reading Personnel	Work Force in April 2010	Remain in Meter Reading December 31, 2016	Left Company	Transition Within Company
Full-time	166	10	19	721
Part-time	818	34	190	751
Management	46	7	12	27
Total	1,030	51	221	758
Percent of Work Force	100%	4.95%	21.46%	73.59%

Table 11Status of Meter Reading Personnel Employed in April 2010

As Table 11 shows, 731 employees (over 73 percent of the Meter Reading personnel from April 2010) have transitioned to another position within SoCalGas. Twenty-one percent of those employed in 2010 have left SoCalGas and 51 employees (4.95 percent) remain in the Meter Reading organization.

SoCalGas continues to encourage Meter Reading employees to explore all company opportunities outside of the Meter Reading organization.

Chapter 6 – Community Education and Outreach

SoCalGas personnel perform an array of outreach activities to inform customers about Advanced Meter project activity. SoCalGas developed a local stakeholder education and community outreach program to ensure every city and county SoCalGas serves is addressed. During the network construction process, outreach is done at the city level with initial city briefings to the city manager and staff including informational presentations to city councils as well as any other sub-committees as necessary. Outreach to the community includes, but is not limited to: one-on-one customer meetings, door knocking, and meetings with homeowner associations, community/neighborhood councils, community groups, and mailings. These efforts include briefing local elected officials, media outreach, community town hall events and local speaking engagements.

6.A Outreach Organizations and Events

To date, we have participated in over 3,091 events. In the time frame of January 1, 2016 through December 31, 2016, SoCalGas completed over 500 public outreach activities, including briefings, presentations, exhibit booths, door-to-door, public service announcements, etc. We also created Advanced Meter ad campaigns with the San Luis Obispo Chamber of Commerce and Malibu Surfside News.

Outreach efforts are complemented by a number of local organizations who simultaneously perform outreach activities under contract to SoCalGas. During the first quarter of 2016 the last group of organizations was brought on board to assist SoCalGas with outreach efforts. SoCalGas continued to partner with GeM Communications (GeM) to manage the solicitation and implementation for local organizations to perform community outreach on behalf of SoCalGas. GeM manages the request for proposal (RFP) process and contracts with community- and faith-based organizations (CBOs, FBOs), disability agencies, Chambers of Commerce, and business organizations that conduct outreach to sensitive communities and customers in specific Advanced Meter installation areas. As of December 2016, nearly 165 organizations have been contracted to support outreach activities for the project with seven active during the time period of this report. Due to the Advanced Meter project ramping down, SoCalGas will no longer be bringing on board organizations through this RFP process. Appendix D provides a list of organizations contracted through GeM.

Chapter 7 - Customer Awareness and Satisfaction

SoCalGas monitors the impact of its outreach activities in the areas of customer awareness and customer satisfaction as it relates to the Advanced Meter project. SoCalGas utilizes a variety of market research diagnostics to monitor the "pulse" of customers pertaining to the Advanced Meter installation process, customer communications, new programs and services, and customer attitudes and motivational drivers to behavioral change.

For purposes of monitoring overall customer awareness and perceptions, SoCalGas uses the Customer Insight Study ("CIS")¹⁸ which is administered by Davis Research. CIS is SoCalGas' public opinion tracking study. It is a phone survey measuring residential (quarterly) and business (semiannually) customer opinion across several factors: favorability, price and value, safety, reliability and reputation. The survey is administered to a representative sample of SoCalGas' customer base, including customers for whom an Advanced Meter has not yet been installed.

Beginning in the fourth quarter of 2010, SoCalGas added three Advanced Meter related questions to the tracking survey. The questions were updated slightly in the fourth quarter of 2012, commensurate with the initial deployment of Advanced Meters. Figure 1 displays the CIS results for the general awareness questions about Advanced Meter for residential customers while Figure 2 displays the results for business customers.

¹⁸ Formerly called iTracker Customer Perception Study.



Figure 1 Customer Insight Study – Residential Customers

Questions:

IM1 (Favorability towards SCG): How would you rate SoCalGas overall on a scale of 1 to 7 where 1 means very unfavorable and 7 means very favorable?

AM1 (Aided Awareness): Are you aware of a new gas meter that transmits natural gas usage information remotely and more frequently from the meter to SoCalGas?

AM2a (Interest/Participation): Having access to your daily natural gas usage (therms/dollars) information would make you interested in viewing it more than once a month? (% Agree)

AM2b (Modify behaviors to conserve): Having access to your daily natural gas usage (therms/dollars) information would cause you to modify your behaviors to conserve natural gas? (% Agree)

Awareness about the Advanced Meter project among SoCalGas residential customers hit record high levels in 2016 and ended the year at 47%, up from 42% in Q4 2015. The general upward trend over the past several years seems to reflect the increased volume of customer communications about the project as well as an increase in installations. Of those customers who were aware of the project in Q4 2016, 27 percent mentioned bill inserts as their source, and 36% mentioned that a meter had been installed at their home.

Customers' interest in viewing hourly consumption data increased during the first two quarters of 2016, however, interest began to fall in Q3 and dipped down to 48% in Q4 2016. Additionally, interest in conserving natural gas slightly increased throughout the first three quarters of 2016, from 63% in Q4 2015 to 66% in Q3 2016. Similar to interest in viewing consumption data, interest in conserving dropped in Q4 2016 and hit a low of 59%.



Figure 2 Customer Insight Study – Business Customers

Questions:

IM1 (Favorability towards SCG): How would you rate SoCalGas overall on a scale of 1 to 7 where 1 means very unfavorable and 7 means very favorable?

AM1 (Aided Awareness): Are you aware of a new gas meter that transmits natural gas usage information remotely and more frequently from the meter to SoCalGas?

AM2a (Interest/Participation): Having access to your daily natural gas usage (therms/dollars) information would make you interested in viewing it more than once a month? (% Agree)

AM2b (Modify behaviors to conserve): Having access to your daily natural gas usage (therms/dollars) information would cause you to modify your behaviors to conserve natural gas? (% Agree)

Advanced Meter awareness among business customers edged up to 51 percent in the fourth quarter of 2016, reaching its highest level to date. Business customers' interest in viewing the hourly consumption data increased to 63% in Q4 2016 up from 54% in Q4 2015. Intent to modify behaviors to conserve ended Q4 2016 at 62%.

Chapter 8 – Elevated Customer Inquiries and Deferral/Opt-Out Program Enrollments

SoCalGas customers may inquire about the Advanced Meter project by contacting either the SoCalGas Customer Contact Center ("CCC") or the Advanced Meter Customer Information Center ("CIC"). The CCC addresses customer inquiries about any subject while the CIC typically

makes appointment arrangements with customers to have their Advanced Meter installed. Advanced Meter "opt-out" requests are processed by the CCC.

Some customer inquiries were not routinely resolved and were escalated to Advanced Meter Customer Experience staff. There have been about 8,202 inquiries since the project's inception. The number of escalated customer inquiries is very low, considering the volume of Advanced Meter communications that have been distributed to SoCalGas customers. Through December 2016, over five million pre-installation letters were mailed to customers. The most common cause of the escalated inquiries is requests to defer/opt-out of the installation of the Advanced Meter communications module.

Although customers can call either the CCC or the CIC to have their deferral/opt-out requests recorded, some ask to speak to the Advanced Meter Customer Experience staff. Their questions usually revolve around safety and privacy concerns, as well as comments on the Advanced Meter Opt-Out Program fees.

Table 12 displays a breakdown of enrollment status for the Advanced Meter Opt-Out Program as of December 31, 2016.

Inquiry Type	Number Received	Explanation
Active customer-requested	7,434	The number of customers actively enrolled and
Opt-Out Program enrollments ¹⁹		being billed for Opt-Out Program fees and charges. ²⁰
Active customers defaulted	21,567	The number of customers that have been
in to the Opt-Out Program		default enrolled ²¹ and are being billed for Opt-
		Out Program fees and charges.
Total Active Opt-Out	29,001 (0.5%)	
Program enrollments		
Customer Opt-Out Program	44,773	The number of customers that requested to be
requests to "opt back in" to		removed from the Opt-Out Program (includes
Advanced Meter installation		customers in both an "Active" and "Pending
		Enrollment" Opt-Out Program status).

Table 12 Advanced Meter Opt-Out Program Enrollment

In March 2014, SoCalGas' Opt-Out Program became effective and the project team initiated efforts to inform employees of the Opt-Out Program and revised any impacted company communication materials. The interim opt-out fees approved by the Commission were consistent with those previously adopted for the other California Investor-Owned Utilities ("IOUs").²² SoCalGas' Advanced Meter Opt-Out Program interim fees for residential customers were as follows:

- o Non-CARE Customers: Initial fee of \$75.00 and \$10.00/month ongoing cost
- o CARE Customers: Initial fee of \$10.00 and \$5.00/month ongoing cost

In December 2014, the Commission issued D.14-12-078 regarding the Smart Meter Opt-Out Phase 2 proceeding; this decision reiterated approval of the interim opt-out fees and charges and adopted them as permanent opt-out fees and charges for residential customers for each of the California IOUs.

¹⁹ "Active" includes only those customers who are enrolled in the Opt-Out Program and are currently being billed associated Opt-Out Program fees. Many customers in a "Pending" status, once presented with final communications regarding Opt-Out Program fees, elect to terminate their prior request for enrollment in the Opt-Out Program. Similarly, customers about to be default-enrolled due to repeated installation/access attempts sometimes contact SoCalGas to schedule an installation prior to being actively enrolled.

²⁰ SoCalGas implemented its Advanced Meter Opt-Out Program effective March 19, 2014, pursuant to D.14-02-019. These customers either requested to defer from an Advanced Meter module installation prior to March 19, 2014, or subsequent to March 19, 2014, requested to enroll in the Advanced Meter Opt-Out Program.

²¹ These customers were defaulted (automatically enrolled) into the Opt-Out Program due to several unsuccessful attempts by SoCalGas to contact the customers to provide access for the installation of the Advanced Meter. ²² D.12-02-014 (PG&E), D.12-04-018 (SCE), and D.12-04-019 (SDG&E).

In April 2015, pursuant to the Commission's Phase 1 and Phase 2 Opt-Out decisions, SoCalGas implemented modifications to its billing system to begin charging opt-out fees to Opt-Out Program participants, including customers who were defaulted into the program. Additionally, information regarding key new features introduced in the Phase 2 decision was incorporated into existing customer talking points and all relevant Advanced Meter customer and external communications materials.

SoCalGas still expects the total percentage of customers who will eventually opt-out to be within the planning assumption of 0.5 percent.

Chapter 9 - Conservation Outreach Campaigns

D.10-04-027 set a goal for SoCalGas to reduce residential gas consumption by one percent and placed reporting requirements on SoCalGas which are referenced in the introduction to this report.²³

In November 2016, SoCalGas launched its fourth targeted heating season conservation campaign leveraging Advanced Meter-enabled usage data. This campaign is the final in the series of four conservation "Test and Learn" campaigns conducted over the course of the Advanced Meter project. The goal of the Test and Learn approach is that, over the course of the Advanced Meter roll out, the most effective means for encouraging energy savings from information feedback will be identified and offered to customers. Each successive heating season campaign incorporates the lessons learned and key findings from the prior campaigns.

The goals of these consecutive conservation campaigns are demonstrating how to best meet the one percent energy savings goal associated with the Advanced Meter rollout and tracking the resulting conservation savings. Of significance in the prior 2015-2016 campaign was that every one of the thirteen new conservation treatments tested produced statistically significant gas savings. These new treatments resulted in savings of over 1.4% total during the 2015-2016 fall/winter period.²⁴ This is an increase in savings vs. savings rates for the successful²⁵ treatments tested in the two prior heating season campaigns, and shows continued progress towards the conservation goal. Continued savings effects were also realized during 2015-2016 for several of the treatments tested during the prior two fall/winter campaigns. Overall, the new and continued successful treatments tested during the last 2015-2016 campaign produced gas savings of almost 1.5%.

²³ This energy savings goal specifically refers to 1% of total *residential* gas usage.

²⁴ Four out of seven treatments tested during the 2014-2015 heating season campaign generated savings of about one percent total. Four out of eleven treatments tested during the 2013-2014 heating season campaign generated savings of about 1.3 percent.

²⁵ Successful treatments are comprised of the subset of treatments tested that were successful in producing statistically significant usage reductions.

For the final fall/winter conservation campaign, SoCalGas strives to enhance the most successful treatments from prior campaigns with the goal of further optimizing their savings rates, positive customer impact and cost-effectiveness.

Please refer to the August SoCalGas Advanced Meter Semiannual Reports for the prior three years for further information, including detailed evaluations, of prior Test and Learn conservation campaigns.

SoCalGas has continued to team with Nexant on several aspects of its conservation campaign implementations and post-campaign evaluations. The primary objectives were as follows:

- Develop comprehensive conservation outreach plans incorporating a Test and Learn program development strategy with a focus on continuous assessment and improvement in the performance of feedback programs;
- 2) Perform evaluations of each year's conservation campaign results, as well as evaluating any continued conservation effects resulting from the prior years' campaigns; and
- 3) Provide recommendations and guidance for the next heating season's proposed "Test and Learn" plan, as well as associated follow-on evaluation of campaign results.

A comprehensive evaluation of the results of the fourth conservation campaign currently underway, as well as additional findings from the treatments tested in the first, second and third campaigns, will be provided in the August 2017 SoCalGas Advanced Meter Semiannual Report.

9.A 2016-2017 Conservation Campaign Design

For the 2016-2017 conservation campaign, high performing program design options from the heating season campaigns conducted during the prior three years were retained and enhanced. New program design alternatives and segmentation approaches are also being tested. The goal is that, over the course of the Advanced Meter roll out, the most effective means for encouraging energy savings from information feedback will be identified and offered to customers.

The major elements of the 2016-2017 campaign are:

- Continue to explore ways to improve the Bill Tracker Alert (BTA), as it has proven to be one of the most cost effective treatments for My Account customers. Develop and test further enhanced versions of the BTA that include additional information and usage information display based on market research findings;
- Continue to track savings for all customers receiving BTAs. Monitor any change in savings that occurred when customers receiving the original BTA were transitioned to receiving the enhanced BTA that was developed in the 2015-2016 campaign;
- Test the BTA with and without seasonal savings tips in the same population to determine whether these tips increase savings;

- Continue to test innovative behavioral methods that more fully leverage AM data, such as weather sensitivity-based "Seasonal Energy Update" reports (SEU), targeted to customers identified through AM-enabled analytics as those with gas usage habits most sensitive to colder weather;
- Explore how the SEU reports perform with CARE customers;
- Test new weatherization-focused SEU with Non-CARE customers;
- Compare the Paper SEU treatments against the Opower Paper-only Home Energy Report, ensuring that both treatments are tested on comparable populations;
- Retest new and simplified Aclara Paper "Home Energy Update" reports (originally tested in the 2014-2015 campaign);
- Develop an in-house developed paper "SoCalGas Usage Report" to test against Aclara and Opower paper energy reports;
- Test the impact of providing a Bilingual English-Spanish language paper energy report and welcome materials in lieu of either a single language English or Spanish report for customers in areas with high rates of Latino population;
- Test a combination of two different information feedback options, BTA with tips and Opower Paper HER, to see if there are incremental savings relative to other populations that only received the BTA treatment;
- Continue to test treatments with the top two usage quartiles since they both produce measurable therm savings; and
- Re-test the BTA that was enhanced in the 2015-2016 campaign on Small and Medium Business (SMB) customers.

Figure 3 graphically depicts the overall design of the 2016-2017 conservation outreach campaign. Further details regarding the current campaign design may also be found in the August 2016 Report, "Appendix E - Evaluation of Southern California Gas Company's 2015-2016 Conservation Campaign, August 2016, Prepared by Nexant." Additional details regarding the conservation outreach campaigns more broadly, including prior years' campaigns, may be found in prior Reports as well.





The 2013-2014 conservation campaign tested BTAs with SMB customers on both an opt-in and default basis. However, at the time there were too few SMB customers with AM data to accommodate a randomized controlled trial. SMB customers were excluded from the second and third Conservation Campaigns for this reason.

BTAs are being re-tested with SMB customers again in the 2016–2017 conservation campaign, however, enabled by the larger numbers of SMB customers that have advanced meters at this point.

Following is an update regarding customer engagement metrics and indicators for the 2016-2017 customer conservation campaigns as of December 31, 2016, as well as those for associated Advanced Meter-enabled energy presentation and analysis tools.

9.B Conservation Campaign Update

SoCalGas, in collaboration with Opower and Aclara for some test treatments, is currently executing the conservation campaign treatments outlined in 9.A above. Since the majority of the conservation campaign communications run through March 2017 (with a few test cells including year-round elements), SoCalGas will not have any final energy conservation results for the 2016-2017 heating season available until July 2017.

Figures 4 through 7 show the communications campaign calendars for the Opower Home Energy Reports, the SoCalGas/Aclara-facilitated Seasonal Energy Update and Home Energy Update reports respectively, and the SoCalGas Usage Reports. Samples of the customer communications outlined in these calendars can also be found in Appendix E "2016-2017 Conservation Outreach Campaign Sample Materials."

Treatment and Description	Volume of Participants	Report Experience
Legacy Test Cell from 2015-2016 CARE ESAP (TC 18a)	8,844	1 paper report and 12 email report mailed monthly
Legacy Test Cell from 2015-2016 CARE Thermostat Campaign (Non ESAP) (TC 18b)	16,656	1 paper report and 12 email report mailed monthly
Legacy Test Cell from 2015-2016 Non CARE My Account Thermostat Campaign (TC 19)	13.750	1 paper report and 12 email report mailed monthly
Legacy Test Cell from 2015-2016 Non CARE Non My Account Thermostat Campaign (TC 20)	13,750	1 paper report
Legacy Test Cell from 2015-2016 Non CARE Non My Account (Opower standard HER) (TC 17)	13,750	1 paper report
New: CARE Non ESAP (T30 A)	32,835	4 paper and 12 email report mailed monthly
New: CARE ESAP I eligible (T30B)	7,369	4 paper report and 12 email report mailed monthly
New: CARE outside ESAP I, previously signed for ESAP (T30C)	12,296	4 paper report and 12 email report
New: Non CARE, My Account (TC 31)	40,554	4 paper reports and 12 email reports
New: Non CARE, Non My Account (T32)	53,500	1 paper report

Figure 4.a – Opower "Home Energy Report" (HER) Treatment Descriptions

	20	16		2017										
	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Paper HER	12/9	12/30	2/3	3/3										
Email HER	11/25	12/16	1/20	2/17	3/17	4/14	5/12	6/16	7/14	8/11	9/15	10/13	11/10	12/15

Figure 4.b – Opower "Home Energy Report" Treatment Communications Calendar

Figure 5 – SoCalGas (Aclara-facilitated) "Seasonal Energy Update" Communications Calendar

	Test Cell 1 (Paper Only)			Test	Test Cell 2 (Paper Only)				Test Cell 3 (Paper Only)					
	17,500 ľ	Non My / Account /	Account & / CARE	& My	18,500 M	18,500 Non My Account / Non CARE				18,500 Non My Account / Non CARE				
	Targ	eted Tes	t Cell Siz	e	Targ	eted Tes	t Cell Siz	e	Targ	geted Tes	t Cell Siz	е		
	201	6	2017		2016		2017		2016		2017			
	Nov	Dec	Jan	Feb	Nov	Dec	Jan	Feb	Nov	Dec	Jan	Feb		
Paper Report	11/30				11/30				11/30					
Frequently Asked Questions Insert	Printed in backside of Welcome Insert	12/16	1/20	2/17	Printed in backside of Welcome Insert	12/16	1/20	2/17	Printed in backside of Welcome Insert	12/16	1/20	2/17		
Welcome Insert	11/30				11/30				11/30					
Thermostat setting reminder Decal		12/16				12/16				12/16				
Customer Satisfaction Survey (Phone and Email Survey)			1/31 th	ru 2/28			1/31 thru 2/28		1/31 thru 2/28				1/31 th	ru 2/28

	Test Cell 1 (Paper Only) 30,000 Non My Account / NON CARE Targeted Test Cell Size						
	201	6	20	17			
	Nov	Dec	Jan	Feb			
Paper Report	12/5 & 12/9	12/16 & 12/19	1/20	2/22			
Welcome Insert	12/5 & 12/9						
Thermostat setting reminder Decal			1/20				
Customer Satisfaction Survey (Phone and Email Survey)			1/31 thru 2/28				

Figure 6 – Aclara-facilitated "Home Energy Update" Communications Calendar

Figure 7 – SoCalGas-developed "SoCalGas Usage Report" Communications Calendar

	2016	2017				
	Dec	Jan	Feb	Mar		
English-only paper report						
Bilingual paper report (English/Spanish)	12/13	1/14	2/10	3/10		

9.B.1 Opower Home Energy Reports

Given the success of Opower's Home Energy Reports (HERs) in generating conservation savings for the prior three campaigns, SoCalGas is leveraging Opower's HER program design again in the final year. SoCalGas contracted with Opower to implement numerous treatments for the 2016-2017 conservation campaign, including continuation into a second heating season for several of the 2015-2016 Opower HER test cell treatments.

The Opower HER contains personalized usage information that is designed to help customers save energy and money. This report engages customers primarily through the "Neighbor Comparison" information. A customer's current gas usage is compared to approximately 100 nearby occupied homes with similar characteristics- such as square footage and heating system.

These comparisons, along with personalized energy saving tips, can help customers understand how they can conserve natural gas.

A total of 359,858 paper HERs and 396,912 emailed HERs (e-HERs) have been sent from November to December 2016.

Table 13	
2016 Opower Home Reports (Continuation + New Test Cells)

	November	December
Paper HER	213,304	146,554
e-HERs	132,304	264,608

As of December 2016, 1,271 (0.6 percent) Opower HER program enrollees opted-out of receiving further Opower HERs during the current campaign. A total of 142,888 e-HERs have been opened in November and December 2016. E-HERs delivered an average open rate of 36% percent, and 3.0 percent of all e-HERs opened have resulted in click-through activity.

Customer acceptance of the Opower treatments remains strong as indicated by the low opt-out rate for recipients of these reports.

9.B.2 SoCalGas (Aclara-facilitated) "Seasonal Energy Update" Reports

As outlined in section 9.A, in the 2016-2017 campaign, SoCalGas continued testing innovative behavioral methods that more fully leverage AM data. In collaboration with Aclara, SoCalGas continued to develop energy reports targeted to customers based on their individual weather sensitivity, called "Seasonal Energy Update" reports. The Seasonal Energy Update report campaign includes paper reports targeted to customers identified through AM-enabled analytics as those with gas usage habits most sensitive to colder weather.

Three test cells were assigned to these Aclara-facilitated treatments. Two treatment groups received a slightly enhanced version of the report tested in the prior year, with one CARE (low income) customer segment test cell and one Non-CARE customer segment test cell. The third Non-CARE test cell received a new version of the report that focused on building envelope-related messaging. Customers in all three test cells received the following: four paper reports; one Welcome Letter/Frequently Asked Questions; three Frequently Asked Questions inserts; and one Repositionable Thermostat Setting Reminder Decal.

The Aclara-facilitated Seasonal Energy Update reports contain personalized usage information to help customers understand their home energy usage when temperatures get cold and to offer tips on how to save energy. Each monthly report provides three pieces of information: 1) Comparison to Neighbors during cold weather; 2) Normal Day vs Cold Day Usage Comparison; and 3) Savings Tips. Customers are also encouraged to lower their thermostat settings to 58

degrees or lower when they're asleep, 68 degrees or lower when they're at home, and 50 degrees or off when away.

A total of 117,568 paper Seasonal Energy Update reports were mailed from November to December 2016.

Table 14	
Aclara Seasonal Energy Update F	Reports

	November	December
Paper Seasonal Energy	58,837	58,731
Updates		

As of December 31st, 2016, 188 (0.3 percent) of program enrollees opted-out of receiving further Seasonal Energy Update reports.

Customer acceptance of the Seasonal Energy Update report treatments was also strong as indicated by both the very low opt-out rate for recipients of these reports.

9.B.3 Aclara Home Energy Update Reports

As outlined in section 9.A, for the 2016-2017 conservation campaign, SoCalGas also contracted with Aclara to re-test newly enhanced and modified Aclara Home Energy Update (HEU) reports. Aclara HEUs were originally tested in the 2014-2015 campaign. The updated Aclara HEU includes streamlined messaging focused on providing customers with insights around their energy consumption, including AM usage data highlights, and personalized tips for lowering energy consumption. One test cell was assigned to this Aclara HEU treatment. Customers in this test cell received the paper HEU four times over the winter months, as well as an initial Welcome Letter and Repositionable Thermostat Setting Reminder Decal.

The Aclara HEU contains personalized usage information to help customers understand their home energy usage and to offer recommendations on how to save energy and reduce waste. Each monthly report provides three pieces of information: 1) Usage comparison to similar homes; 2) Natural gas usage breakdown; and 3) Personalized savings tips.

A total of 64,182 paper HEUs were mailed from November to December 2016.

Table 14 Aclara Home Energy Update Reports

	November	December
Paper HEUs	32,091	32,091

As of December 2016, 7 customers (0.02 percent) opted out of receiving HEU reports.

9.B.4 SoCalGas-developed "SoCalGas Usage Report"

As outlined in section 9.A, for the current campaign, SoCalGas developed a new paper "SoCalGas Usage Report" to test against Aclara and Opower paper energy reports. The SoCalGas Usage Report was developed completely in-house leveraging SoCalGas internal analytics capabilities to develop the "similar home comparison" information contained the reports. The report also incorporates customized messaging for homeowners and renters.

A key goal for testing this report is to determine if an in-house developed energy report could offer a potentially more cost-effective alternative to energy report programs outsourced to external vendors. Another key goal for the SoCalGas Usage Report is to test the impact of providing a Bilingual English-Spanish language paper energy report and welcome materials in lieu of either a single-language English or Spanish report for customers in areas with high rates of Latino population. (Bi-lingual energy reports are not currently offered by external providers.)

In December 2016, 27,500 customers received a paper SoCalGas Usage Report:

- 13,750 received a bi-lingual Spanish and English report; and
- 13,750 received an English-only report.

As of December 31, 2016, 13 customers had opted out of receiving the reports, or 0.05%.

9.B.5 Bill Tracker Alerts Enrollment

SoCalGas Bill Tracker Alerts (BTAs) offer several key features to help customers maintain a high level of energy usage awareness and engagement with SoCalGas. They help customers maintain "top of mind" awareness of their natural gas consumption which is critical to creating the ongoing behavioral change necessary to achieve energy conservation.

Bill Tracker Alerts provide "Advanced Meter Billed" customers with the following information on a weekly basis and are sent alerts via email and/or mobile phone SMS text message:

- Bill-to-Date (\$)
- Projected Next Bill (\$)
- Last year, Same Month Bill Amount (\$) [Seasonal comparison]
- Days Remaining in the Current Billing Cycle (#)
- Last Month's Bill Amount (\$)*
- Days Elapsed in the Current Billing Cycle (#)*
- Choice of weekly email and/or SMS text messages
 - * provided via email only, due to 160 character text limitation

As outlined in section 9.A, given continued proven savings results coupled with the costeffectiveness of BTA delivery via electronic channels (email and text), the SoCalGas 2016-2017 "Test and Learn" campaign treatments include continued testing of different BTA options and approaches, including a treatment group with small to medium business customers. Samples of the various enhanced weekly Bill Tracker Alert emails being tested in the 2016-2017 campaign may be found in Appendix E "2016-2017 Conservation Outreach Campaign Sample Materials."

Through December 2016, 446,553 SoCalGas customers were actively enrolled in Bill Tracker Alerts (see Table 16 below, which provides cumulative enrollments-to-date). These enrollments support the Advanced Meter project conservation savings goal as well as SoCalGas' 2013-2016 Energy Efficiency behavior change program household participation goals.²⁶

Item	Count through December 31, 2016
Total Subscriptions	537,955
Auto Enrollment	452,647
Microsite – Online @ billtracker.socalgas.com	13,516
Microsite – Business Response Cards	7,611
Microsite – Hard-to-Reach Events	724
My Account/CSR – "Manage Alerts"	63,457
Total Unsubscriptions ²⁷	91,402
By Customer (subscribed via Microsite/Auto Enrollment)	21,902
By Customer (subscribed via My Account)	3,749
By System (i.e., Account Closed)	65,751
Total Active Subscriptions	446,553

Table 16 SoCalGas Bill Tracker Alerts Enrollment

The BTAs retention rate continues to remain high at 83 percent. Seventy-two percent of the "unsubscribes" are due to system factors, such as customer account closures, which results in a customer-initiated unsubscribe rate of five percent since the program's inception. This is a strong indicator that customers value weekly email and/or SMS text messages that keep them apprised of their bill-to-date, projected next bill, last month's bill, last year's same month bill, and the number of days remaining in their current billing cycle.

²⁶ Pursuant to D.12-11-015, SoCalGas is also utilizing its Advanced Meter project to support its Energy Efficiency non-resource behavior goals, which contain a 5% behavioral target for residential households.

²⁷ The majority of cancelled subscriptions are system-related (e.g., Account closures); currently 5% are due to customers unsubscribing.

Figure 6 displays some of the customer characteristics of customers enrolled in Bill Tracker Alerts as of December 31, 2016.



SoCalGas Bill Tracker Alert Characteristics as of December 31, 2016

Figure 6

* As of December 31, 2016, California Alternative Rates for Energy ("CARE") customers accounted for approximately 27.75% of percent of SoCalGas' residential customer base.

9.C My Account "Ways to Save" Tool Utilization

Another key indicator of enhanced customer engagement enabled or stimulated by Advanced Meter includes customer utilization of the SoCalGas.com, My Account-based "Ways to Save" online tools.

As described in prior Reports, SoCalGas has implemented energy presentation and analysis tools within its My Account customer portal, as well as within the SoCalGas Mobile App. Through December 31, 2016 (project-to-date), a total of 473,259 residential My Account users (both new and returning users) have engaged with the Ways to Save tool "My Savings Plan" web page from which users could view their personal energy use profile and initiate a savings plan, as well as navigate to view their hourly and daily gas usage and other energy usage and
bill-related information. In 2016 alone, there were 88,406 new and returning users of the "Analyze Usage" hourly and daily gas usage section within the Ways to Save tools.

For further details regarding the new Advanced Meter-enabled online energy information feedback options rolled out to customers, please refer to prior Reports.

Appendices

Appendix A - Mass Install Timeline

This timeline represents above ground installation work only. Warehouses assigned to perform curb meter work may require extensions.

Note: Planned warehouse closure dates are subject to change. Advanced Meter deployment will continue into 2017. Warehouse closures may be modified based on project close activities including transition to regular operations and workforce availability amongst Mass Installation and other SoCalGas personnel to perform remaining installations.

A	DVANCED met	er			N	lass I	nstal	llation T Nove	imeline		
			20	16				2017			
	Staging Location	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
	Sun Valley		Complete	d 10/2014				~			
	Northridge		Complete	d 10/2015							
	LAX		Complete	d 08/2016							
×	Bakersfield		Complete	d 11/2013							
lea	Visalia		Complete	d 07/2014							
Ā	Valencia		Complete	d 10/2015				Installation Clean Up & Closure			
	Statham (Oxnard)		Complete	d 10/2016							
	Ward (Goleta)		Complete	d 06/2016							
	Oakley (Santa Maria)		Complete	d 09/2016							
a B	Irwindale		Complete	d 12/2014							
Are	Rancho Cucamonga										
ea C	South Gate										
Are	Los Angeles										
~	El Centro		Complete	d 05/2013							
	Indio		Complete	d 11/2013							
ğ	Hemet		Complete	d 08/2014							
Are	Perris		Complete	d 02/2015							
	Mission Viejo		Complete	d 07/2016							
	Anaheim										

Appendix B - List of Cities and Counties with Fully Installed DCUs

Adelanto	Compton	Indio	Murrieta	Santa Ana
Agoura Hills	Corcoran	Industry	Norco	Santa Clarita
Alhambra	Corona	Irwindale	Norwalk	Santa Fe Springs
Aliso Viejo	Costa Mesa	Jurupa Valley	Ontario	Santa Maria
Anaheim	Covina	Kern County	Orange	Santa Monica
Arcadia	Cudahy	Kings County	Oxnard	Santa Paula
		La Canada		
Arroyo Grande	Culver City	Flintridge	Palm Desert	Shafter
Artesia	Cypress	La Habra	Palm Springs	Simi Valley
Atascadero	Dana Point	La Habra Heights	Palmdale	Solvang
Azusa	Delano	La Mirada	Paramount	South El Monte
Bakersfield	Desert Hot Springs	La Palma	Pasadena	South Gate
Baldwin Park	Diamond Bar	La Puente	Paso Robles	South Pasadena
Banning	Dinuba	La Quinta	Perris	Stanton
Beaumont	Downey	La Verne	Pico Rivera	Taft
Bell	Duarte	Laguna Hills	Pismo Beach	Temecula
Bell Gardens	Eastvale	Laguna Niguel	Placentia	Temple City
Blythe	El Centro	Lake Elsinore	Pomona	Torrance
Bradbury	El Monte	Lake Forest	Port Hueneme	Tulare
Brawley	El Segundo	Lakewood	Porterville	Tulare County
Brea	Fillmore	Lancaster	Rancho Cucamonga	Tustin
Buellton	Fontana	Lawndale	Rancho Mirage	Twentynine Palms
			Rancho Santa	
Buena Park	Fresno County	Lemoore	Margarita	Upland
Calexico	Fullerton	Loma Linda	Redlands	Ventura
California City	Garden Grove	Lomita	Reedley	Vernon
Calimesa	Glendora	Lompoc	Rialto	Villa Park
Calipatria	Goleta	Los Alamitos	Riverside County	Visalia
Camarillo	Grand Terrace	Lynwood	Rolling Hills Estates	Walnut
Carpinteria	Grover Beach	Manhattan Beach	Rosemead	Wasco
Carson	Hanford	Maywood	San Bernardino	West Covina
			San Bernardino	
Cathedral City	Hawaiian Gardens	Menifee	County	West Hollywood
Cerritos	Hawthorne	Mission Viejo	San Clemente	Westmorland
Chino	Hemet	Monrovia	San Dimas	Whittier
Chino Hills	Highland	Montclair	San Fernando	Wildomar
Claremont	Holtville	Montebello	San Gabriel	Yorba Linda
Coachella	Imperial	Monterey Park	San Jacinto	Yucaipa
Colton	Imperial County	Moorpark	San Luis Obispo	Yucca Valley
Commerce	Indian Wells	Moreno Valley		

Appendix C - List of Cities and Counties that are no longer Fully Installed due to increased number of sites needed for Network Optimization

Beverly Hills Gardena Guadalupe Hermosa Beach Seal Beach Westminster

Appendix D - Community Based Organizations, Business Organizations and Chambers

Active January 1 – December 31, 2016

Caregivers

- El Centrito Learning Centers
- Manna Conejo Valley Food Distribution Center
- Mixteco/Indigena Community Organizing Project (MICOP)

Ojai Chamber of Commerce

United Way of Ventura

Ventura Chamber of Commerce

2016-2017 Conservation Outreach Campaign Sample Materials:

Opower "Home Energy Report" (HER) Front - Direct Mail



2016-2017 Conservation Outreach Campaign Sample Materials:

Opower "Home Energy Report" (HER) Back – Direct Mail



2016-2017 Conservation Outreach Campaign Sample Materials:

Opower – HER Welcome Insert (Front and Back)



2016-2017 Conservation Outreach Campaign Sample Materials:

Opower – HER Welcome Insert (Inside Page)

Millions of households are already using their Home Energy Reports and online tools to reduce their use and save money. And now you can, too.

What's in your report

Neighbor comparison

We compare your natural gas use with approximately 100 nearby homes that share similar size, fuel type, and more. These homes represent your neighbors, but don't necessarily include the homes on your block.



Efficiency tips and programs

You'll see personalized energy-efficiency tips based on what we know about your home. From quick and easy tricks to upgrades with big saving potential, these tips can help you save more natural gas and lower your bill.

Your report may also include current rebates and programs you can join to boost the comfort and saving power of your home.

Discover more online

Insights and tools are waiting for you

Visit our website to learn even more about how you use gas, see seasonal ways to save and enroll in programs that make managing your natural gas use and bills easier and more convenient.

Make your report more accurate

The more we know about your home, the more personalized your insights and tips will be. Go online to update your home profile for a more accurate report.



Get started at SCG.opower.com.

2016-2017 Conservation Outreach Campaign Sample Materials:

Opower - Door Hanger

0

SOB_002 LDHUHERAZ

ant of



2016-2017 Conservation Outreach Campaign Sample Materials:

Opower - Thermostat HER (Front) - Direct Mail



2016-2017 Conservation Outreach Campaign Sample Materials:

Opower - Thermostat HER (Back) - Direct Mail



2016-2017 Conservation Outreach Campaign Sample Materials:

Opower - CARE/ESAP (Front) - Direct Mail



2016-2017 Conservation Outreach Campaign Sample Materials:

Opower - CARE/ESAP (Back) - Direct Mail



2016-2017 Conservation Outreach Campaign Sample Materials:

Opower – CARE/ESAP (Back) – Direct Mail



2016-2017 Conservation Outreach Campaign Sample Materials:

Opower – CARE/ESAP (Back) – Direct Mail



Energy Savings Assistance Program¹

Keep up the good energy!



- Set your water heater to 120 degrees for safe and energy-efficient usage. · Combustible, flammable liquids should not be stored near any gas appliances. Ensure that items such as rags and mops do not interfere with normal appliance airflow.
- . When washing clothes, wash full loads. Save up to 10 percent on hot water costs by washing and rinsing full laundry loads in cold water.
- . Set your thermostat to 68 degrees or lower, health permitting, when at home. Set it at 58 degrees when away from home*.

"Data, analysis and recommendations in this report are based on estimates and projections and are provided for informational purposes only. For colories weathing the U.S. Department of Energy recommends that the thermostat should be set at 50 degrees while you are every in the white to keep pipes from incarding and animatis stati.

Frequently asked questions

What's a therm?

A therm is a way to measure natural gas use. Cooking on a gas stovetop uses one therm every 10 hours.

How is my comparison calculated?

Your natural gas use is compared to homes with a similar size, building type, and heating system. You can view your home information at scg.opower.com.

Why does SoCalGas® send these reports?

When customers save energy, we get closer to meeting our state energy efficiency goals. It's good for everyone.

How do I stop receiving reports? Call 1-877-959-7188.



- amcic@socalgas.com
- 1-877-959-7188

socalgas.com/rebates



Eiglible homoowners may receive repair or replacement services when existing natural gas units are deemed incentable or hazardous. This program is funded by California utility customers and administened by Southern California Gas Company (SocalGasH) under the auspices of the California Tuble Utilities Commission. Emergy Improvements completed under this program and made by this-party provides: contracted by SocalGasH, Program thurds (including my thand utilized for heatase or hearthwey will be allocated on a first-come based untel south and are no longer available. This program may be modified or terminated without prior notice. The selection, purchase, and ownership of goods and' or services are the sole responsibility of customers. SocalGas measures no working the warranty of mechanizability of these for a particular purpose, of goods or services elected by oustomer. Castamers who choose to participate in this program are not chologiated to purchase any additional goods or services offend by other third party. SocalGas does not endorse, quality, or guarantise the work of any contractor or other third party. Eligibility requirements apply; see the program conditions for details.

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2016-2017 Conservation Outreach Campaign Sample Materials:

(SoCalGas 🗤	Sempra Energy way	
Acct # *****65740		
You us	hbors.	
Θ	Great	
	Good	
	Using more than average	
Efficient Neighbors	11 therms	
You		16 therms
All Neighbors		18 therms
Sep 4, 2015 - Oct This comparison is yours. Learn more.	5, 2015 based on approx. 90 nearby homes that are	most similar to

Opower – HER – email



2016-2017 Conservation Outreach Campaign Sample Materials:

A surf of suspense	6740				
Acct #	5074U				
١	'ou us	ed 45% more th	an your e	fficient neigh	bors.
		Great			
	÷	Good			
		Using more than a	werage		
Efficient Neighbors				11 therms	
You					16 therms
All Neighbi	ors				18 therms
Dec. 4, 004	5 - Oct	5. 2015			

Opower – Thermostat HER email



2016-2017 Conservation Outreach Campaign Sample Materials:

Aclara-facilitated – November "Seasonal Energy Update" – Direct Mail (Front)

A Sempra Energy utility®	Your Seasonal November 2016 Account number:	Energy Update
NAME ADDRESS ADDRESS		
Dear [NAME], Colder days are coming soon! Get re natural gas bill.	eady with these simple tips to s	stay warm and lower your
Last Winter Cold Day Usage Com	nparison*	
You Typical Neighbors Efficient Neighbors	6 Therms 3 Therms 1 Therm	2X
What is a Therm? A standard unit for measuring heat One therm equals approximately 100 cubic feet of nat Who are your Neighbors? Typical Neighbors: Households in your area that ex Efficient Neighbors: Households in your area that u	energy. ural gas. perience similar weather. se less natural gas during cold weather.	You used about 2X more natural gas than your typical neighbors. *December 2015 - February 2016
Set your Thermostat and Save! 68° At Home 58° Asleep 50° Away		
	Every two degrees yo could reduce your hea	u lower your thermostat, you ating costs by up to 4-5 percent.

2016-2017 Conservation Outreach Campaign Sample Materials:

Aclara-facilitated – November "Seasonal Energy Update" – Direct Mail (Back)



2016-2017 Conservation Outreach Campaign Sample Materials:

Aclara-facilitated – November "Seasonal Energy Update" – Welcome Letter (Front)



2016-2017 Conservation Outreach Campaign Sample Materials:

Aclara-facilitated – November "Seasonal Energy Update" – Welcome Letter (Back)



Seasonal Energy Update

Frequently Asked Questions & Reference Guide

Q. Why am I receiving this Seasonal Energy Update report?

A. The report you received is part of a pilot program from SoCalGas® to help customers like yourself understand your seasonal energy usage patterns through the fall and winter months, and to discover opportunities where you might be able to save energy and reduce your gas bills. These reports are being distributed for a limited time to a select group of SoCalGas customers in the pilot program. The reports will then be evaluated before potentially offering them in subsequent years or expanding the number of customers who will receive them.

Q. How was I selected to be part of this program?

A. You were selected for this program because you may have potential to save energy and money this winter. Based on historical data, your household gas usage has been shown to be sensitive to cold weather and amongst those with highest average gas usage on cold days.

Q. How many reports will I receive and how often will they be sent? What if I'd rather not receive them?

A. Program participants will receive four monthly paper reports provided from November 2016 through February 2017. You may call 888-873-4894, Monday through Friday, from 8 a.m. to 6 p.m. PT, if you would prefer to stop receiving these reports.

Q.Which neighbors/households is my gas usage being compared to in the "Cold Day Usage Comparison" chart on the front side of the Seasonal Energy Update report?

A. Your household's average daily gas usage for the five coldest days last winter is compared to that of other households in your area that have similar usage levels and experience similar weather. For the first two monthly reports, the comparison period is last winter (December 2015 through February 2016). For the January 2017 and February 2017 monthly reports, the comparison period is the most recent two prior months.

 "Households in your area_that experience similar weather": "Your area" refers to one of six SoCalGasdefined climate zones. These geographically defined climate zone areas are comprised of High Mountain, High Desert, Low Desert, Coastal, Valley and Inland Valley. They were developed by SoCalGas for purposes of factoring in regional weather conditions to forecast gas supply needs for SoCalGas' service territory.
 Households with similar usage levels are those households in your area that used average or greater than average gas usage during the comparison period.

• Typical Neighbors: The bar shown is approximately the average daily gas usage on the five coldest days during the comparison period for households in your area experiencing similar weather.

• Efficient Neighbors: The bar shown is the average daily gas usage for the 20 percent of households in your area that have the lowest average daily gas usage for the five coldest days during the comparison period.

Q. Please provide further details for the "Your Usage on a Normal Day vs. Cold Day" chart on the back side of the Seasonal Energy Update report:

A. The comparison highlighted in this chart – for the November 2016 and December 2016 reports – is a comparison of your average daily gas usage for the five coldest days last December 2015 through February 2016, to your average daily gas usage during this same period. For reports dated January 2017, the comparison period is for the most recent two months, November 2016 through December 2016. For reports dated February 2017, the comparison period is for the most recent two months, December 2016 through January 2017.

Q. Is my information kept confidential?

A. Yes, in accordance with SoCalGas' Privacy Policy and Privacy Notice, which may be viewed at <u>www.socalgas.com</u>.

For further information or questions regarding the report, please call 888-873-4894, Monday through Friday, from 8 a.m. to 6 p.m. PT, or visit: pages.socalgas.aclara.com/WSFAQ

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2016-2017 Conservation Outreach Campaign Sample Materials:

Aclara-facilitated - "Seasonal Energy Update" - Frequently Asked Questions Insert



Seasonal Energy Update

Frequently Asked Questions & Reference Guide

Q. Why am I receiving this Seasonal Energy Update report?

A. The report you received is part of a pilot program from SoCalGas® to help customers like yourself understand your seasonal energy usage patterns through the fall and winter months, and to discover opportunities where you might be able to save energy and reduce your gas bills. These reports are being distributed for a limited time to a select group of SoCalGas customers in the pilot program. The reports will then be evaluated before potentially offering them in subsequent years or expanding the number of customers who will receive them.

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 Households with <u>similar usage levels</u> are those households in your area that used average or greater than average gas usage during the comparison period.

• **Typical Neighbors:** The bar shown is approximately the average daily gas usage on the five coldest days during the comparison period for households in your area experiencing similar weather.

• Efficient Neighbors: The bar shown is the average daily gas usage for the 20 percent of households in your area that have the lowest average daily gas usage for the five coldest days during the comparison period.

Q. Please provide further details for the "Your Usage on a Normal Day vs. Cold Day" chart on the back side of the Seasonal Energy Update report:

A. The comparison highlighted in this chart – for the November 2016 and December 2016 reports – is a comparison of your average daily gas usage for the five coldest days last December 2015 through February 2016, to your average daily gas usage during this same period. For reports dated January 2017, the comparison period is for the most recent two months, November 2016 through December 2016. For reports dated February 2017, the comparison period is for the most recent two months, December 2016 through January 2017.

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2016-2017 Conservation Outreach Campaign Sample Materials:

Aclara-facilitated – "Seasonal Energy Update" – Repositionable Sticker



2016-2017 Conservation Outreach Campaign Sample Materials:

Aclara – November "Home Energy Update" – Direct Mail (Front)



2016-2017 Conservation Outreach Campaign Sample Materials:

Aclara – November "Home Energy Update" – Direct Mail (Back)



2016-2017 Conservation Outreach Campaign Sample Materials:

Aclara – November "Home Energy Update" – Welcome Letter



Data, analysis, and recommendations in the reports are based on estimates and projections, and are provided for informational purposes only. For questions regarding the reports, please call 888-873-4894, Monday through Friday, from 8 a.m. to 6 p.m. PT, or visit <u>pages.socalgas.aclara.com/FAQ</u>. Images and charts shown above are for illustrative purposes only. ©2016 Southern California Gas Company. All copyright and trademark rights reserved.

2016-2017 Conservation Outreach Campaign Sample Materials:

Aclara – "Home Energy Update" – Repositionable Sticker



2016-2017 Conservation Outreach Campaign Sample Materials:

"SoCalGas Usage Report" (Renters English) – Direct Mail



2016-2017 Conservation Outreach Campaign Sample Materials:

"SoCalGas Usage Report" (Homeowners English) - Direct Mail



2016-2017 Conservation Outreach Campaign Sample Materials:

"SoCalGas Usage Report" (Bilingual English Front) – Direct Mail



2016-2017 Conservation Outreach Campaign Sample Materials:

"SoCalGas Usage Report" (Bilingual Spanish Back) – Direct Mail



2016-2017 Conservation Outreach Campaign Sample Materials:

Door Hanger "SoCalGas Usage Report" (English) – Direct Mail



2016-2017 Conservation Outreach Campaign Sample Materials:

"SoCalGas Usage Report" (English) Insert – Direct Mail



WHAT IS THIS REPORT AND

WHY ARE YOU RECEIVING IT? This year, we selected you randomly from our SoCalGas customer database to participate in a pilot program that's geared toward motivating customers to take action and conserve energy. We believe that the information contained on this report will provide you insights and also help guide you to use gas more efficiently.

WHAT TO EXPECT?

In the next few months, you will be receiving personalized letters that will include your previous months' usage compared to nearby homes. These nearby homes have been identified based on size, age, type of home (e.g., home owner or renter). Aside from these, we also considered your weather zone in the calculation. Information from a third-party data provider was also used. More specific details on the algorithm can be found on **socalgas.com/usage report**. Please note that some figures used are estimates only and may not represent actual information.

YOUR INFORMATION AND PRIVACY

SoCalGas is committed to protecting your Energy Usage information and ensuring appropriate protection exists when collecting, storing, using and reporting that information. For more information visit socalgas.com/privacy-notice.

TO OPT OUT

If you do not wish to participate in this pilot program, you can opt out at any time by calling **1-800-427-4400**.

<image><image><image><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><image>

Better understanding your natural gas usage is the first step in saving energy and money.

2016-2017 Conservation Outreach Campaign Sample Materials:

"SoCalGas Usage Report" (Spanish/Bilingual) Door Hanger – Direct Mail





🕲 impreso en papel reciclado
2016-2017 Conservation Outreach Campaign Sample Materials:

"SoCalGas Usage Report" (Spanish/Bilingual) Insert Front – Direct Mail



WHAT IS THIS REPORT AND WHY ARE YOU RECEIVING IT?

The information in this report has a number of great insights on using gas more efficiently. So, get ready to save. You were selected from our customer database to take part in a pilot program designed to help the entire community conserve energy together.



WHAT TO EXPECT?

You will receive personalized letters in the next few months that include your previous months' usage compared to other homes in your area. These other residences were selected based on things like size, age and the type of home (homeowner or renter). Also, we considered the weather zone in our calculation and received some information from a third-party data provider. More specific details on the algorithm can be found on **socalgas.com/usagereport**. Please note that some figures used are estimates only and may not represent actual information.

YOUR INFORMATION AND PRIVACY

SoCalGas is committed to guarding your energy usage information and ensuring that proper protection exists when collecting, storing, using and reporting the data.

To learn more, please visit socalgas.com/privacy-notice.

HOW TO OPT OUT

If you do not wish to participate in our community pilot program, you can opt out at any time by calling 1-800-427-4400.

socalgas.com/usagereport

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Ƴ f 🔠 🖸 Printed on recycled paper

2016-2017 Conservation Outreach Campaign Sample Materials:

"SoCalGas Usage Report" (Spanish/Bilingual) Insert Back – Direct Mail



¿QUÉ HAY EN ESTE INFORME Y POR QUÉ LO RECIBE?

La información en este informe tiene varias ideas geniales sobre cómo usar el gas de manera más eficiente. Así que, prepárese para ahorrar. Usted ha sido seleccionado de nuestra base de datos de clientes para participar en un programa piloto diseñado para ayudar a toda la comunidad en conjunto a preservar la energía.



¿QUÉ DEBE ESPERAR?

Recibirá cartas personalizadas en los próximos meses, que incluirán su consumo de meses anteriores en comparación con otros hogares en su área. Estas otras residencias se seleccionaron en función de características, como tamaño, edad y tipo de hogar (propietarios o inquilinos). Además, consideramos la zona climática en nuestros cálculos y recibimos información de nuestro proveedor de datos tercerizado. Podrá encontrar detalles más específicos sobre el algoritmo en **socalgas.com/usagereport/es**. Tenga en cuenta que algunas cifras utilizadas son únicamente estimadas y es posible que no representen información real.

socalgas.com/usagereport/es

1-800-427-4400

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SU INFORMACIÓN Y PRIVACIDAD

SoCalGas se compromete a mantener la información sobre su consumo de energía y a asegurar que exista una protección adecuada al recopilar, almacenar, usar e informar datos.

Para obtener más información, visite socalgas.com/privacy-notice.

BAJA VOLUNTARIA

Si no desea participar en nuestro programa comunitario piloto, puede optar por la baja voluntaria en cualquier momento, llamando al **1-800-427-4400**.

F Impreso en papel reciclado.

2016-2017 Conservation Outreach Campaign Sample Materials:

SoCalGas "Enhanced Bill Tracker Alert" (BTA) developed in the 2015-2016 campaign

		er Update	
{customer first (nickname)}	t name}, here is you	Ir update for {account nu	umber
My Bill to Date:			
21 days elapsed:			10 days remaining
	\$28 Bill to Date	\$36 Projected Next Bill*	
Projected Next Bill: Last Month's Bill:	arison		\$36 \$30
Projected Next Bill: Last Month's Bill: Same Month Last Ye Log in to My Accou costs, set up a savir	ear: nt and visit <u>"Ways to Save"</u> ngs plan and more!	– to view your daily and hourly r	S36 S30 S40 natural gas usage and
Projected Next Bill: Last Month's Bill: Same Month Last Ye Log in to My Accoun costs, set up a savir	ear: nt and visit <u>"Ways to Save"</u> ngs plan and more!	– to view your daily and hourly r	S36 S30 S40 natural gas usage and

2016-2017 Conservation Outreach Campaign Sample Materials:

New Bill Tracker Alert with a Rotating Energy Tip

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I

SocalGas SocalGas Update	acker
, here is your update for ****	**
My Bill to Date:	
14 days elapsed:	16 days remaining
\$10.00 Bill to Date \$20.72 Projected Next	Bill*
Your Bill Comparison	
Projected Next Bill:	\$20.72
Last Month's Bill:	\$61.26
Same Month Last Year:	\$67.55
daily and hourly natural gas usage and costs, set up plan and more!	a savings
Thank you for being a valued customer, SoCalGas®	
Connect with us: 🗾 📑 🛅 🐻	
socalgas.com Bill Assistance Rebate Pro	ograms
Make sure you receive our emails by adding <u>customerservice@socalgas.cc</u> book. Please do not reply to this email. Email sent to this address cannot to assistance, please visit our <u>Help Center</u> . Southern California Gas Company privacy. For more information, view our <u>Privacy Policy</u> and <u>Privacy Notice</u> .	om to your address be answered. For values your
Email notification code: 131A	
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2016-2017 Conservation Outreach Campaign Sample Materials:

New Business BTA Welcome Email

SoCalGa ∧ ⊗ Sempra Energy ⊎	Bill Tracker Notification
Welcome	e to SoCalGas [®] Bill Tracker Alerts
You are now following impo	on the path to start saving money and energy. You will be receiving the ortant information through weekly SoCalGas Bill Tracker Alert emails:
 Bill to D Projecte Last Me Same N Days E 	Pate ed Next Bill onth's Bill Aonth Last Year's Bill lapsed and Remaining in the Current Billing Cycle
Account:	\$QUICK_NAME (\$MASKED_ACCOUNT_NUMBER)
Log in to Busi	r being a valued customer,
SoCalGas [®] \$PROMOTIO	Ν
	Connect with us: E
socal	gas.com Ways to Save Pay Bill Online Rebate Programs
Make sure you recei email. Email sent to Company values you To unsubscribe, log	ve our emails by adding <u>customerservice@socalgas.com</u> to your address book. Please do not reply to this this address cannot be answered. For assistance, please visit our <u>Help Center</u> . Southern California Gas ur privacy. For more information, view our <u>Privacy Policy</u> and <u>Privacy Notice</u> .
Email notification co	de: \$EMAIL_CODE
© SYEAR Southern materials used unde	California Gas Company. Trademarks are property of their respective owners. All rights reserved. Some r license, with all rights reserved by licensor.

2016-2017 Conservation Outreach Campaign Sample Materials:

New Business Bill Tracker Alert

Ē.

Here is you	ır update for	(******)
My Bill to Da	ate:		
14 days elapsed:			15 days remainin
	\$196.22 Bill to Date	\$363.78 Projected N E	ext Bill*
Your Bill Co	mparison		
Projected Next I	Bill:		\$363.78
Last Month's Bil	l:		\$403.56
Same Month La	ist		\$344.67
Log in to Bu your daily ar savings plar Log In »	siness My Account a nd hourly natural gas n and more!	nd visit <u>"Ways to Sa</u> usage and costs, se	<u>ve"</u> to view at up a
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