Non-Residential Process Evaluation Study: Attachment 4

Contains:

Evaluability Assessment, and Work Plan

Final Report

CALMAC Study ID SDG0256.05

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Submitted to:

San Diego Gas & Electric Company

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Content

This booklet contains Attachment 4, of the San Diego Gas & Electric (SDG&E) Nonresidential Process Evaluation for 2010-2012. Specifically, it includes the following files, in the order shown here:

- Evaluability Assessment
- Work Plan

The main report volumes (Main Report, Attachment 1 – Portfolio level evaluations, and Attachment 2 – Program-specific evaluations); and Attachment 3 (Data Collection Resources and customer survey frequency tables) are in separate booklets. The report structure is described in more detail in the "Introduction" section of the Main Report.

Background and Limitations of Work Plan and Evaluability Assessment:

The work plan and evaluablity assessment were developed early in the study (immediately after the kick off meetings), to guide the bulk of the project. The evaluability assessment was developed in conjunction with the work plan. This assessment describes key characteristics for all nonresidential programs, and identifies which programs would be evaluated in more detail through the study. Note that both files were developed based on limited data collection. The information they contain should be considered with much less weight than the information provided in the main volumes of the report (Main Report, Attachment 1, and Attachment 2), which are based on far more extensive data collection.

Official Name	Program Name	Program Code(s)	2010-2012 Program Revised Budget	Projected Gross Elec Savings (kWh/yr)	Projected Gross Gas Savings (therms/yr)	Program Develop-ment Phase	Key stakeholders (individuals, agencies, etc.)	Key gatekeepers to information (staff member in charge of customer data, savings data - may be more than	Is the program logic model complete? Does it include the following: 1) Set up: Need	Are the marketing materials complete and available?	Are the application forms available?	Is the program participant data available?
Local03 - Local Non-Residential (BID)	Non-Res Bid	SDGE3117	$34,034,091	79,109,674	6,282,756	Mature Implementation	Sempra management, program managers, vendor alliance Sector leads, AE supervisor	Dande Tucker, sector managers for vendor alliance, AE supervisor	Yes	No. Note in program files says should be completed Q2 2011	Yes (did not see these)	Yes (in program database)
SW-ComE - Direct Install	Direct Install	SDGE3174	$18,001,000	22,296,383	(19,865)	Mid Implementation	Program manager - Margaret Finley, Sempra management, Sector manager	Margaret Finley	Yes	Don't Know (Collateral not mentioned, recruiting is through contractor calls and visits)	Not Applicable (Do not appear to be required, though participation (installs) is tracked)	Yes
SW-ComB - Deemed	Deemed	SDGE3106	$16,520,919	77,534,267	1,046,730	Mature Implementation	Sempra management, Program manager, Implementation contractor - PECI, lighting contractors	SDG&E rebate processing department, EM&V regulatory group reports data to CPUC	Yes	No (Only in PIP)	Yes	Yes (in program database)
SW-IndB - Deemed		SDGE3110	$5,231,082	21,064,281	458,008							
SW-AgB - Deemed		SDGE3101	$1,065,994	-	993,784							
SW-IndA - Calculated	Calculated	SDGE3109	$11,704,376	9,348,107	3,065,514	Mature Implementation	Sempra management, Program manager, Kathleen Blanco - program assistant, AEs	Kathleen Blanco - program assistant (Jim is moving to a new position).	Yes	Yes	Yes	Yes for Ind and Comm (in program database); don't know for Ag
SW-ComA - Calculated		SDGE3105	$4,248,850	5,794,573	(33,980)							
SW-AgA - Calculated		SDGE3100	$3,830,683	1,648,566	761,535							
3P-NRes01 - Non-Res HVAC Tune-up/Quality Installation	HVAC Tune-up & Quality Installation	SDGE3161	$5,135,117	27,481,055	(5,776)	Mid Implementation	CSG, program staff, contractors.	CSG is responsible for the data, which is uploaded to SDGE	Yes, but manager requests we review it	Yes	Yes	Yes
Kitchen Learning Center	Kitchen Learning Center	SDGE3176	$4,483,591	NR	NR	Design/ Pilot	Sempra management, program manager	Ellery Stahler	Don't know	Don't know	Not applicable	Not applicable
Local05 - OBF	On Bill Financing	SDGE3139	$2,624,999	NR	NR	Mature Implementation	Program manager, managers for Deemed and Calculated programs, AE Department (Kathleen Polango and Edmund), Engineering (Kevin Valenzuela)	Jill McGee has access to SAP and database of program participants. Vendors may have other data (such as non-participants).	Don't Know	Don't Know (Most customer outreach is through vendors.)	Don't Know	Yes
Local02 - Local Island Program	Local Island/Micro Grid	SDGE3137	$2,572,180	916,165	-	Design/ Pilot	Program manager, DOE, CPUC, CEE, others	Nathan Bruner, Synergy for Res implementaton, Matrix Energy Services for commercial	Yes	Don't Know	Don't Know	Yes (have not seen)
Local06 - Local Strategic Development & Integrat	Strategic Planning and Integration	SDGE3140	$2,096,386	NR	NR	Other - Pgm has no implementation	Sempra management					
3P-NRes13 - Retro Commissioning (RCx)	SDGE3170 - Retrocomissioning	SDGE3170	$2,043,307	5,642,856	169,286	Mature Implementation	Sempra management,program manager, PECI program manager (David Peery, Morgan Moser), AEs	PECI - David Peery. SDGE - Gloria Bowen	No	Yes	Yes	Yes (in program database)
SW-ComD - Continuous Energy Improvement	Continuous Energy Improvement (CEI)	SDGE3108	$1,958,979	NR	NR	Early Implementation	Sempra management, Sector manager, Margaret Finley (Prg. Advisor), AEs, CPUC (CEI supposed to be key delivery	Margaret Finely has Sempra recruitment targets list.	Yes	Don't Know (Recruitment via personal meetings. Don't	Yes (Letter of Participation)	No (Only recruitment targets are available)
SW-IndD - Continuous Energy Improvement		SDGE3112	$584,304	NR	NR							

Program Name	Program Code(s)	Is the program savings data available?	Are the program performance metrics (PPMs) measured?	Are the performance metrics (PPMs) tracked?	Are there additional metrics or Key Performance Indicators (KPIs) for monitoring progress towards goals?	What type of information or interviews will be needed for evaluation?	Has the program followed the recommendations provided in the last process evaluation study?	Program evaluation priority	Comments and Evaluation Goals for Program	Med / High Level Eval?	Reason why / why not evaluated at Medium / High level
Non-Res Bid	SDGE3117	Yes (in program database)	Not Applicable (tracked as a component of Calculated)	Not applicable (no PPMs)	Not aware of any	interviews with program staff, Calculated staff, participating customers,vendors in alliance, possibly vendors who have been deactivated	Don't know. Will review as part of evaluation.	High	High projected savings. Mature program, but has changed over time. Changes have upset some in vendor alliance, though the changes will likely improve the accountability of the program. Important to track this and see if other accountability opportunities should be addressed. Evaluation Goals: Document how well the program works with new rules, are rules working for the trade allies and customers, are savings goals achieved.	Yes	High savings predicted
Direct Install	SDGE3174	No	Don't Know (various PPMs, but did not have time to discuss)	Don't Know (various PPMs, but did not have time to discuss)	Raw installation data is probably available from install contractors, but not yet consolidated in SMART (preferred)	Interview Joe Ruisi (SCE) re: collaboration, 4 installation contractors, survey participants and non-participants	not offered in 06-08	Medium	Program has high predicted savings, but savings have not yet been tracked. An evaluation would confirm if program is projected to meet savings goals. Evaluation goals include: Assessing coordination issues between implementation contractors, with other SDGE programs, with Business Improvement Districts (BIDs), and with other California utilities (e.g., SCE); Determining reasons for non participation in the program; Assessing participant satisfaction; Assessing data tracking issues; Determining if program is tracking PPMs.	Yes	The program has high predicted savings, but the savings have not yet been tracked. So this evaluation must confirm the program is on track to meet the savings goals as is expected.
Deemed	SDGE3106 SDGE3110 SDGE3101	Yes (in program database)	Yes (Only year-end, not program cycle)	Yes	No	Implementation contractor, trade allies, SDG&E staff (measure developer, audit department, benchmarking program manager, OBF staff, inspections, application processing), participants and non-participants	Don't know, but it was evaluated (as Express Efficiency)	Medium	Improve application processing and turn-around for rebate payment. Get market feedback (participants, potential participants, contractors) on program design and rebate levels, optimize inspection levels. Look at best practices elsewhere (e.g., Point of Sale delivery mechanisms). Assess value and barriers created by benchmarking requirements. Improve ability to track and report on program progress.	Yes	High savings predicted
Calculated	SDGE3109 SDGE3105 SDGE3100	Yes for Ind and Comm (in program database); don't know for Ag	Yes	Yes		AEs, Participants	No program specific recommendations in last evaluation	Medium	Program depends on links from feeder programs. Medium savings on the portfolio level. Evaluate training of new staff. Streamline program reporting. Identify links and influence of "feeder" programs	Yes	High savings predicted
HVAC Tune-up & Quality Installation	SDGE3161	Yes	Yes	Yes		Qualitative in depth interviews	Yes. They reviewed and made revisions to the program based on past evals	Medium	Program in mid-stream. It was implemented in 2006-08, but they have made shifts in the program design for this program cycle. Several goals to include in the evaluation include: Assess barriers to meeting energy goals, including funding levels which were reduced mid-planning; Assess marketing and co-branding; Review program logic model; Benchmark with warm weather gas companies to identify other gas measures, including boiler and rooftop tune-ups.	Yes	The participation numbers are sufficient enough to evaluate. Additionally, there have been some modifications to program design that warrant evaluation, even though the program was evaluated int the last program cycle.
Kitchen Learning Center	SDGE3176	Not applicable	Not applicable (no PPMs)	Not applicable (no PPMs)	Could track number of participants at events, try to link participation in rebate programs with learning center events			Low	Kitchen Learning Center will be part of SDG&E's Energy Innovation Center, to test equipment and encourage participation in rebate programs. It is not yet complete.	No	Center will not be fully operational until August 2011
On Bill Financing	SDGE3139	Don't Know	Not applicable (no PPMs)	Not applicable (no PPMs)	There are internal metrics concerning payments and defaults.	There should be surveys with vendors who enroll customers in the program. We need to know about their training experiences, if they have data for customers who declined to participate, how they deal with the process of enrolling participants.	Don't know. It was evaluated last time.	Medium	Program had ramp-up between 2006-08, has been running since. The OBF has a low default rate (5 / 715) and fairly robust participant base. The program is marketed through vendors, and vendors help customers complete loan application. There are quality issues with this vendor process. Evaluation Goals: Understand effectiveness of vendor handbook. Comparable outcomes of other OBF programs that are embedded within the programs. Concern over reworking customer applications from poorly trained vendors. Describe small commercial program approval processes.	Yes	Key program with important program linkages across portfolio.
Local Island/Micro Grid	SDGE3137	Yes (have not seen)	Not applicable (no PPMs)	Not applicable (no PPMs)	None were identified other than number of homes and businesses to participate	Interviews with program staff, implementation contractors, and community contacts. (Survey of customers seems less necessary)	not offered in 06-08	Medium	Program manager does not want it evaluated. Evaluation goals: document program, provide assessment of feasibility of quick DSM implementation in microgrid area	No	Program staff feel that this is a one-time thing and not something that the process will provide lessons from.
Strategic Planning and Integration	SDGE3140								Department is not part of the program portfolio. Strategic development supports higher level portfolio planning. No process evaluation is suggested for this program.	No	Not a true program.
SDGE3170 - Retrocomissioning	SDGE3170	Yes (in program database)	No	No		RCx providers, participants, Aes	No - It was evaluatd, but PECI wasn't aware of previous program evaluation recommendations	Medium	Program is fully subscribed but third party programs present unique process challenges; there is the possibility of expanding program savings goals. Program manager would like to benchmark the program against other programs, both in California and nation-wide.	Yes	Possibility of expanding program.
Continuous Energy Improvement (CEI)	SDGE3108 SDGE3112	No (Supposedly could be available if there is	Yes (Will track customers that develop an energy	Yes (0 to date)		Interviews with initial customer targets after recruitment. Why are they participating or why not? Interviews with customer	not offered in 06-08	Medium	No completed projects to date. What is this program's potential in SDG&E service territory? Will large C/I/Ag customers participate partially or fully in CEI program? If not, why? If yes, how much staff and monetary resources can they allocate to EE planning, retrofits, and monitoring? Will they	No	Early implementation, no progress yet.

Official Name	Program Name	Program Code(s)	2010-2012 Program Revised Budget	Projected Gross Elec Savings (kWh/yr)	Projected Gross Gas Savings (therms/yr)	Program Develop-ment Phase	Key stakeholders (individuals, agencies, etc.)	Key gatekeepers to information (staff member in charge of customer data, savings data - may be more than	Is the program logic model complete? Does it include the following: 1) Set up: Need	Are the marketing materials complete and available?	Are the application forms available?	Is the program participant data available?
SW-AgE - Continuous Energy Improvement		SDGE3104	$136,176	NR	NR		mechanism statewide)			know if there are materials. No marketing on website.)		
3P-NRes08 - Lodging Energy Efficiency Program	Lodging & Heathcare Energy Efficiency Programs	SDGE3166	$1,616,409	3,214,487	(8,123)	Mature Implementation	Sempra management, Program manager, Implementation contractor- Willdan Energy Solutions: Gwen Strickland, LEEP; Alex Araiza, HEEP	Willdan Energy Solutions	Yes	Don't Know	Don't Know	Don't Know
3P-NRes07 - Healthcare Energy Efficiency Program		SDGE3165	$1,616,407	6,729,288	(45,555)							
SW-ComC - Nonresidential Audits	Nonres audits	SDGE3107	$1,562,143	NR	NR	Other - not operating	Sempra management, Sector managers, Jim Tripoli - program manager (but leaving this position soon), managers for Deemed and Calculated	Program managers for other audit type programs.	Yes	Don't Know	Yes	Yes
SW-IndC - Nonresidential Audits		SDGE3111	$440,165	NR	NR							
SW-AgC - Nonresidential Audits		SDGE3102	$142,169	NR	NR							
3P-NRes11 - Portfolio of the Future (PoF)	Portfolio of the Future	SDGE3168	$674,016	NR	NR	Completed	Sempra management, Jeff Hirsh - Program Specialist, Implementation Contractor (Navigant)	Data are EE measure deemed savings and figures from Navigant (Jay Luboff)	No	Not Applicable (Non-resource internal program to determine EE technologies for other programs)	Not applicable - no participants	Not applicable - no participants
3P-NRes03 - Business Energy Assessment (BEA)	Business Energy Assessment	SDGE3163	$568,307	NR	NR	Mature Implementation	Sempra management, Program manager, Implementation contractor (EnVINTA - Stuart Molder)	EnVINTA	Yes	Don't Know	Don't Know	Yes
Core Statewide Res and Commercial HVAC Programs: Commercial Quality Installation, Commercial Upstream Equipment, Quality Maintenance Program, Technolology & Systems Diagnostics, HVAC WE&T, HVAC Core	HVAC Statewide	SDGE3146 SDGE3147 SDGE3148 SDGE3149 SDGE3150 SDGE3151	$911,705 (total for all 6 programs)	NR	NR	Design/ Pilot	SDGE management, Program manager	N/A	Yes, for the statewide model.	Yes	N/A, because pilot stage	N/A, because pilot stage
3P-NRes02 - SaveGas - Hot Water Control	SaveGas Program	SDGE3162	$471,821	0	491,790	Mature Implementation	Sempra management, Program manager - Jerry Humphrey, Implementation Contractor - EDC Technologies - Jim Seidell	Jim Seidell - EDC Technologies	No	Don't Know	Don't Know	Don't Know
3P-NRes06 - Energy Efficient Water Pumping	Energy Efficient Water Pumping	SDGE3164	$303,247	NR	NR	Early Implementation	Program manager - Teresa Verdugo, Implementation contractor - PETS (Pumping Efficiency Testing Services)	Teresa Verdugo and Arnie Garcia, PETS	No (Logic model exists, but does not include the items above)	Don't Know (Probably, we haven't seen them)	Don't Know	Don't Know
3P-NRes12 - Comprehensive Industrial Energy Effic	Comprehensive Industrial Energy Efficiency	SDGE3169	$1,584,845	241,769	300,000	Early Implementation	Program manager - Teresa Verdugo, Implementation contractor - Onsite	Teresa Verdugo, Onsite	Don't Know	Don't Know	Don't Know	Yes

Program Name	Program Code(s)	Is the program savings data available?	Are the program performance metrics (PPMs) measured?	Are the performance metrics (PPMs) tracked?	Are there additional metrics or Key Performance Indicators (KPIs) for monitoring progress towards goals?	What type of information or interviews will be needed for evaluation?	Has the program followed the recommendations provided in the last process evaluation study?	Program evaluation priority	Comments and Evaluation Goals for Program	Med / High Level Eval?	Reason why / why not evaluated at Medium / High level
	SDGE3104	participation and completed projects)	management plan)			selection staff - was process effective?			actually implement projects, in what timeframe? How does this program overlap with related statewide efforts and how do those related efforts (that are championed by CPUC) compete with customers limiting participation for CEI?		
Lodging & Heathcare Energy Efficiency Programs	SDGE3166	Don't Know	Not applicable (no PPMs)	Not applicable (no PPMs)	Links to resource programs	Interviews with 3P implementer, Participants, Aes	No program specific recommendations in last evaluation	Medium	Identify program processes. Identify links to other SDGE resource programs to improve effectiveness of this feeder program. IT issues - LEEP does not track the results of the comprehensive audits in any database (though reports are available to SDG&E).	No	Now a nonresource program. Key issues are overarching for audit type programs (coordination with resource-based programs and tracking results). Also, for LEEP - HMG team will evaluate SaveGas program, which targets lodging program.
	SDGE3165						No program specific recommendations in last evaluation	Low			
Nonres audits	SDGE3107	Not Applicable (nonresource based program)	Not Applicable - program not operating	Not Applicable - program not operating		interviews with Calculated and Deemed participants, to see if fed from other audit type programs; if not, how they could be better reached	No program specific recommendations in last evaluation	Low	This program isn't being carried out. Audits are being conducted through other programs (e.g., LEEP, HEEP, BEA, RCx, ICEAT). Recommend assessing audits as a cross-cutting issue, leveraging other initiatives to identify the role of audits in the programs and opportunities to improve the process in general.	Yes	Could serve as key feeder program, but not operating. Evaluation will also research broader audit issues (e.g., integration with resource based programs)
	SDGE3111										
	SDGE3102										
Portfolio of the Future	SDGE3168	Not Applicable (nonresource based program)	Not applicable (no PPMs)	Not applicable (no PPMs)	Technology recommendations, percent adopted, are being tracked.	Interview Navigant to understand their approach for identfying technologies to recommend. Interview program directors to understand how they decide which technologies to include.	No program specific recommendations in last evaluation	Low	Internal program to recommend new technologies for including in other programs. 3P (Navigant) assesses new technologies. Program manager is interested in developing custom technologies in the marketplace into portfolio wide measures. Only 2% of recommended technologies are adopted. Evaluation Goals: Understand why recommended technologies are not included in portfolio. Is there opportunity for customer recommended EE technologies?	No	Nonresource program, not key to portfolio.
Business Energy Assessment	SDGE3163	Not Applicable	Not applicable (no PPMs)	Not applicable (no PPMs)	Links to other programs. Not currently tracked.	Participant interviews. 3P implementer interview.	Don't know. It was evaluated last time.	Medium	Evaluate marketing (currently unknown) and participant follow-up. Identify links between BEA and other programs. SDGE staff seem unsure about how the program is currently being run; key link to "feeding" customers to Deemed and Calculated programs.	No	Program is currently studied by CPUC and will be replaced by third-party audit tool in coming year.
HVAC Statewide	SDGE3146 SDGE3147 SDGE3148 SDGE3149 SDGE3150 SDGE3151	Not Applicable (nonresource based program)	No	No	Participation and support in meetings; completion of additional research by program staff as requested by committee.		No program specific recommendations in last evaluation	Low	This is a nonresource program for the utility. Their involvement is limited beyond participation in statewide meetings. The only concrete evaluation goal identified is to identify what gas savings are available and relevant for SDGE's market.	No	The HVAC program is part of a core offering if six sub-programs led by SCE. This is a nonresource program. There is little direct activity for SDGE There are no participants, and budget is primarily used to support staff resources. Evaluation resources should be directed to programs that have more impact on the overall
SaveGas Program	SDGE3162	Not Applicable	Not applicable (no PPMs)	Not applicable (no PPMs)		3P implementer interview, Participant interviews	No program specific recommendations in last evaluation	Low	Program manager seems unclear as to how the program is operating. Assess lack of participation and savings.	Yes	Savings lower than expected. Site data also found to be inaccurate, so can't claim savings.
Energy Efficient Water Pumping	SDGE3164	Don't Know	Not applicable (no PPMs)	Not applicable (no PPMs)	Yes. Should track conversions from pump tests to participation in the incentive program	Interviews with PETS, customers. Review marketing materials, pump test reports, participation info from incentive program	No program specific recommendations in last evaluation; may not have been offered 06-08	High	This is a new program and some basic processes could be worked out and put into place to ensure success. Develop a better system for data tracking, specifically conversion rates. Develop QA procedures for Implentation Contractor: submit test report summaries.	No	Early implementation, no progress yet.
Comprehensive Industrial Energy Efficiency	SDGE3169	Yes	Yes	Yes	There is not a good tracking mechanism for audit results or conversion to incented measures	Contract with Onsite, marketing plan, interviews with Onsite, and select customers	No program specific recommendations in last evaluation	High	This program has problems and would benefit from a re-design. 3P contractor incentive structure should be reconsidered.	Yes	High potential for improvement through evaluation.

SDG&E Process Evaluation – Final Work Plan

Non-Residential Programs

HMG Project No: 1110

SDG&E Project No: #5660021545

Date: August 4, 2011

Submitted to:

SDG&E

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TABLE OF FIGURES

1. INTRODUCTION

The Heschong Mahone Group, Inc. (HMG) was contracted by San Diego Gas & Electric (SDG&E) to lead a team to conduct process evaluation services for their non-residential energy efficiency programs. Besides HMG, the evaluation team includes Research into Action, Navigant Consulting, Evergreen Economics, Energy Market Innovations, and Tetra Tech. Under Contract #**5660021545**, the study scope includes the following tasks:

- Task 1: Conduct Project Initiation Meeting
- Task 2: Conduct Evaluability Assessment
- Task 3: Develop the Final Research Plan
- Task 4: Data Collection and Analysis
- Task 5: Prepare Reports and Database of results
- Task 6: Presentation of Results
- Task 7: Project Management and Progress Reporting

This document serves as the deliverable for Task 3. This document provides a workable research plan to lead the actual process evaluations to be carried out. Using the program materials review and staff interview results, we developed a detailed understanding of the status of each of the programs to be evaluated. In this review, we realized this plan will require critical balancing and planning judgment to achieve the best match of evaluation resources and program needs. In preparing the plan, we considered several competing objectives:

- **Matching Evaluation Resources to Program Importance** - We assume that the more important programs, in terms of savings, customer impact, complexity and other factors, should be evaluated to a higher level of rigor than the smaller, simpler programs.
- **Adjusting Evaluation Approach to Program Characteristics** - The evaluation approach for each program - data collection strategies, sample sizes, etc. - are adjusted in light of the evaluation resources assigned to the program, the process evaluation needs of the program managers, and the currency of the existing program process information. For example, a stable program that was thoroughly evaluated in the preceding round of process evaluations may not need another detailed evaluation this cycle. On the other hand, a new, innovative and different type of program may require a more in-depth set of interviews and data review in order to provide timely feedback on ways to improve the program.
- **Coordinating Evaluation of Similar Customer Groups and Program Strategies** - The programs naturally group into market sectors and/or program delivery types. This presents opportunities for a coordinated data collection strategy that could gather sector data more efficiently than possibly duplicating data collection with a

strict program-by-program approach. This could also help to guard against survey fatigue or over-contacting of customers who may have taken advantage of more than one program opportunity.

- **Coordinating Survey Instruments and Data Analysis** – We will keep the number of distinct survey instruments as low as practicable, with a minimum number of specialized, program-specific questions. This will help ensure consistency in the data collection and the subsequent analysis. For example, low-level process evaluations could use a basic survey instrument common to most similar programs, and those programs getting a more in-depth evaluation could have both the basic questions and a set of more advanced, specialized questions.

1.1 Work Plan Document Organization

Section 1 presents the type of evaluations to be conducted and an overview of the scope of work each includes.

Section 2 presents the proposed level of evaluation to be included in this effort and a rationale for this choice.

Sections 3 and 4 describe the proposed work plans for specific programs and cross-cutting (portfolio-wide) issues, respectively, targeted for evaluation at a medium to high level. In general, each evaluation program/topic includes the following content sub-sections:

- Program background – Program summary, goals, and current status
- Research issues - Key issues or research questions that the evaluation will investigate
- Proposed data collection and analysis methods – Study targets, data needs, and analysis methodology
- Approach to Interviews – Data collection strategy and coordination activities
- Estimated budget

The Appendices include:

- A summary of the Evaluability Assessment table.
- Savings status analysis of the overall portfolio, and of the nonresidential programs. This analysis found that SDG&E is on track to meet kWh savings, but is not on track to meet therm savings. Consequently, we also summarized the gas saving status for nonresidential programs projected to deliver therm savings for SDG&E. For comparison, we also presented gas savings status of similar programs at other Investor Owned Utilities (IOUs).

In addition to program and cross cutting issue-specific data collection, the evaluation team will also collect data from key parties whose perspective and knowledge are relevant across multiple programs and cross-cutting issues. In order to efficiently gather such data and minimize staff disruptions, such 'overarching' data collection activity will be consolidated. Section 3.11 describes this planned research in more detail.

This project is being conducted simultaneously for Southern California Gas (SoCal Gas), to leverage cost sharing. Consequently, references to budget for programs or issues that will be evaluated at both utilities are shown in total (both utilities) and for each individually.

1.2 Low Priority Evaluations

Some specific programs are not prioritized in this effort and will be evaluated at a low level, due largely to budget constraints, because the HMG team is also evaluating cross-cutting (portfolio-wide) issues. In addition, a number of these programs are new and/or have little progress to evaluate, or have been cancelled.

For programs evaluated at a low level, the final report will summarize findings based on program manager interviews and the Program Implementation Plans (PIPs) and present the status of the program relative to goals, based on the most recent reporting. This summary will also integrate programs evaluated at the medium-high level, presenting a complete picture of the portfolio.

1.3 Proposed Budget

Because a 'medium to high' evaluation level is somewhat vague, the following labor budget gives a sense of the proposed relative level of effort for each program and cross-cutting issue to be evaluated. For example, the much higher budget for the Calculated programs compared with the Retrocommisioning program reflects the higher level of its proposed evaluation effort.

Sector of Focus	Program Type	Program or Cross Cutting (CC) Issue (Utility)	Pgm Workplan Budget	CC Workplan Budget	Expenses
Commercial	BID	IT and Data Tracking Issues (both)		$ 41,440	$ 1,000
		BID Program (both)	$ 42,165		$ 9,600
Industrial	Calculated	Comp. Ind. EE (SDGE)	$ 5,000		
		Calculated Programs (both)	$ 80,000		$ 25,000
		Crosscutting Issue, "Statewide Coordination" (both)		$ 20,000	
Agriculture	Deemed	Deemed (both)	$ 75,000		$ 25,000
		Regulatory Crosscutting Issue (both)		$ 30,000	
Commercial	Direct Install	Direct Install (SDGE)	$ 46,350		$ 9,100
		Cross-Cutting Review of Program Best Practices (both)		$ 35,250	
		Cross-Cutting Review of Organizational Issues (both)		$ 24,150	
HVAC/Audits	HVAC/Audits	Retrocommissioning (SDGE)	$ 23,600		
		HVAC Tune-up & Quality Installation (SDGE)	$ 36,450		$8,400
		Non-Residential Audits Program (both)	$ 31,070		
		Marketing (both)		$ 12,850	
3P/Local	3P/Local	3P - SaveGas (both; about same LOE for both utilities)	$ 56,623		
		Local - On Bill Financing - OBF (SDGE)	$ 20,308		
		3P - Resource Efficiency in Private Schools (SCG)	$ 27,851		
All	All	Overarching surveys and interviews			$ 28,710
		Program management (Task 7)		$ 20,000	
		Travel expenses for final presentation			$4,000
		Subtotals for Labor and Expenses		**$ 628,107**	**$ 110,810**
		TOTAL			**$ 738,917**

Figure 1: Estimated Budget for SDG&E and SCG, Evaluation Tasks 4-7

	SDGE		*SCG*		*Combined*	
	NTE	Projected	NTE	Projected	NTE	Projected
Labor	$404,000	$415,413	$243,000	$212,694	$647,000	$628,107
Expenses	$99,688	$68,702	$59,813	$42,108	$159,501	$110,810
Total	**$503,688**	**$484,115**	**$302,813**	**$254,802**	**$806,501**	**$738,917**

Figure 2 shows the projected compared with the not-to-exceed (NTE) budgets. These two figures demonstrate that the projected budget is within the NTE budgets for Tasks 4-7.

	SDGE		*SCG*		*Combined*	
	NTE	Projected	NTE	Projected	NTE	Projected
Labor	$404,000	$415,413	$243,000	$212,694	$647,000	$628,107
Expenses	$99,688	$68,702	$59,813	$42,108	$159,501	$110,810
Total	**$503,688**	**$484,115**	**$302,813**	**$254,802**	**$806,501**	**$738,917**

Figure 2: Projected Compared with NTE Budgets

2. PROGRAM EVALUATION PRIORITIES

This section describes which non-residential programs will be evaluated at a medium to high level, and the rationale for this decision. The rationale is based on the evaluability assessment, a summary of which is presented in the Appendix. The full evaluability assessment is attached as a companion document to this work plan. Because the decision was also based on program savings, this section also lists programs by projected savings.

- Figure 3: SDG&E Programs for Medium-High level of evaluation, in decreasing order of program budget – this also describes the rationale for evaluating / not evaluating a program at the medium/ high level
- Figure 4: SDG&E Programs, in decreasing order of Projected Electricity Savings
- Figure 5: SDG&E Programs, in decreasing order of Projected Natural Gas Savings

Program Name	Program Code(s)	2010-2012 Program Revised Budget	Program Develop-ment Phase	Evaluate at Med / High Level?	Reason why / why not evaluated at Medium / High level
Non-Res Bid	SDGE3117	$34,034,091	Mature Implement ation	Yes	High savings predicted
Direct Install	SDGE3174	$18,001,000	Mid Implement ation	Yes	The program has high predicted savings, but the savings have not yet been tracked. So this evaluation must confirm the program is on track to meet the savings goals as is expected.
Deemed	SDGE3106	$16,520,919	Mature Implement ation	Yes	High savings predicted
	SDGE3110	$5,231,082			
	SDGE3101	$1,065,994			
Calculated	SDGE3109	$11,704,376	Mature Implement ation	Yes	High savings predicted
	SDGE3105	$4,248,850			
	SDGE3100	$3,830,683			
HVAC Tune-up & Quality Installation	SDGE3161	$5,135,117	Mid Implement ation	Yes	The participation numbers are sufficient enough to evaluate. Additionally, there have been some modifications to program design that warrant evaluation, even though the program was evaluated in the last program cycle.
Kitchen Learning Center	SDGE3176	$4,483,591	Design/ Pilot	No	Center will not be fully operational until August 2011

Program Name	Program Code(s)	2010-2012 Program Revised Budget	Program Develop-ment Phase	Evaluate at Med / High Level?	Reason why / why not evaluated at Medium / High level
On Bill Financing	SDGE3139	$2,624,999	Mature Implement ation	Yes	Key program with important program linkages across portfolio.
Local Island/Micro Grid	SDGE3137	$2,572,180	Design/ Pilot	No	Program staff feel that this is a one-time thing and not something that the process will provide lessons from.
Strategic Planning and Integration	SDGE3140	$2,096,386	Other - Pgm has no implement ation	No	Not a true program. Not part of program portfolio.
SDGE3170 - Retrocomission ing	SDGE3170	$2,043,307	Mature Implement ation	Yes	Possibility of expanding program.
Continuous Energy Improvement (CEI)	SDGE3108	$1,958,979	Early Implement ation	No	Early implementation, no progress yet.
	SDGE3112	$584,304			
	SDGE3104	$136,176			
Lodging & Healthcare Energy Efficiency Programs	SDGE3166	$1,616,409	Mature Implement ation	No	Now a nonresource program. Key issues are overarching for audit type programs (coordination with resource-based programs and tracking results). Also, HMG team will evaluate SaveGas program, which targets lodging program.

Program Name	Program Code(s)	2010-2012 Program Revised Budget	Program Develop-ment Phase	Evaluate at Med / High Level?	Reason why / why not evaluated at Medium / High level
	SDGE3165	$1,616,407			Now a nonresource program. Key issues are overarching for audit type programs (coordination with resource-based programs and tracking results).
Nonres audits	SDGE3107	$1,562,143	Other - not operating	Yes	Could serve as key feeder program, but not operating. Evaluation will also research broader audit issues (e.g., integration with resource based programs)
	SDGE3111	$440,165			
	SDGE3102	$142,169			
Portfolio of the Future	SDGE3168	$674,016	Completed	No	Nonresource program, not key to portfolio.
Business Energy Assessment	SDGE3163	$568,307	Mature Implement ation	No	Program is currently studied by CPUC and will be replaced by third-party audit tool in coming year.
HVAC Statewide	SDGE3146 SDGE3147 SDGE3148 SDGE3149 SDGE3150 SDGE3151	$911,705 (total for all 6 programs)	Design/ Pilot	No	The HVAC program is part of a core offering if six sub-programs led by SCE. This is a nonresource program. There is little direct activity for SDGE There are no participants, and budget is primarily used to support staff resources. Evaluation resources should be directed to programs that have more impact on the overall portfolio of offerings.
SaveGas Program	SDGE3162	$471,821	Mature Implement ation	Yes	Savings lower than expected. Site data also found to be inaccurate, so can't claim savings.
Energy Efficient Water Pumping	SDGE3164	$303,247	Early Implement ation	No	Early implementation, no progress yet.

Program Name	Program Code(s)	2010-2012 Program Revised Budget	Program Develop-ment Phase	Evaluate at Med / High Level?	Reason why / why not evaluated at Medium / High level
Comprehensive Industrial Energy Efficiency	SDGE3169	$1,584,845	Early Implement ation	Yes	High potential for improvement through evaluation.

Figure 3: SDG&E Programs for Medium-High level of evaluation, in decreasing order of program budget

In Figure 4, savings are listed by projected electricity savings (highest to lowest). All other programs are nonresource (no savings will be claimed).

Program Code	Program Name	Projected Gross Elec Savings (kWh/yr)	Evaluated at Med / High level?
SDGE3117	Local03 - Local Non-Residential (BID)	79,109,674	Y
SDGE3106	SW-ComB - Deemed	77,534,267	Y
SDGE3161	3P-NRes01 - Non-Res HVAC Tune-up/Quality Installation	27,481,055	Y
SDGE3174	SW-ComE - Direct Install	22,296,383	Y
SDGE3110	SW-IndB - Deemed	21,064,281	Y
SDGE3109	SW-IndA - Calculated	9,348,107	Y
SDGE3165	3P-NRes07 - Healthcare Energy Efficiency Program	6,729,288*	No
SDGE3105	SW-ComA - Calculated	5,794,573	Y
SDGE3170	3P-NRes13 - Retro Commissioning (RCx)	5,642,856	Y
SDGE3166	3P-NRes08 - Lodging Energy Efficiency Program	3,214,487*	No
SDGE3167	3P-NRes09 - Mobile Energy Clinic (MEC)	2,698,412	No
SDGE3100	SW-AgA - Calculated	1,648,566	Y
SDGE3137	Local02 - Local Island Program	916,165	No
SDGE3169	3P-NRes12 - Comprehensive Industrial Energy Efficiency	241,769	Y
SDGE3101	SW-AgB - Deemed	0	Y
ALL OTHER PROGRAMS HAVE 0 PROJECTED SAVINGS			

Figure 4: SDG&E Programs, in decreasing order of Projected Electricity Savings

*These programs were recently changed to nonresource programs.

In Figure 5, programs are listed by projected gas savings (highest to lowest). Note that several programs have projected gas savings that are negative, due to the interactive effect. All other programs are nonresource (no savings will be claimed).

Program Code	Program Name	Projected Gross Gas savings (therms/yr)	Evaluated at Med / High level?
SDGE3117	Local03 - Local Non-Residential (BID)	6,282,756	Y
SDGE3109	SW-IndA - Calculated	3,065,514	Y
SDGE3106	SW-ComB - Deemed	1,046,730	Y
SDGE3101	SW-AgB - Deemed	993,784	Y
SDGE3100	SW-AgA - Calculated	761,535	Y
SDGE3162	3P-NRes02 - SaveGas – Hot Water Control	491,790	Y
SDGE3110	SW-IndB - Deemed	458,008	Y
SDGE3169	3P-NRes12 - Comprehensive Industrial Energy Efficiency	300,000	Y
SDGE3170	3P-NRes13 - Retro Commissioning (RCx)	169,286	Y
ALL OTHER PROGRAMS HAVE 0 PROJECTED SAVINGS			
SDGE3167	3P-NRes09 - Mobile Energy Clinic (MEC)	-65	N
SDGE3161	3P-NRes01 - Non-Res HVAC Tune-up/Quality Installa	-5,776	Y
SDGE3166	3P-NRes08 - Lodging Energy Efficiency Program	-8,123*	N
SDGE3174	SW-ComE - Direct Install	-19,865	Y
SDGE3105	SW-ComA - Calculated	-33,980	Y
SDGE3165	3P-NRes07 - Healthcare Energy Efficiency Program	-45,555*	N

Figure 5: SDG&E Programs, in decreasing order of Projected Natural Gas Savings

*These programs were recently changed to nonresource.

3. Evaluation Work Plans

The following section includes work plans for programs targeted for evaluation at a medium to high level. The CPUC designator code is listed below the program title and SDG&E designation. Programs are listed in order of program budget (highest to lowest).

3.1 Energy Savings Bid (Local03, Local05 – Local Non-Residential BID)

CPUC codes: SDGE3117

3.1.1 Background

This program provides incentives for customer energy-efficient retrofits or replacements of existing equipment. A qualifying project, also known as a contract, must achieve annual savings of at least 500,000 kWh or 25,000 therms. Measures applied for through Energy Savings Bid (ESB) cannot overlap with other incentive programs. The program is expected to generate a large portion of the kWh and therm savings for the portfolio.

ESB enables the customer/project sponsor to propose incentive amounts for their project. The recommended maximum project incentive is limited to the lesser of 100% of the project's measure cost or the applicable amount listed in Figure 6, below.

Type of Measure	Incentive
Interior Lighting	Up to $0.10 per annual kWh savings
Exterior Lighting	Up to $0.07 per annual kWh savings
A/C & Refrigeration	Up to $0.20 per annual compressor kWh savings
Compressor VFD	Up to $0.15 per annual kWh savings
Other Electric	Up to $0.10 per annual (Including other kWh savings A/C & Refrigeration)
Natural Gas	Up to $1.00 per annual therm savings

Figure 6: Energy Savings Bid Program, Recommended Maximum Incentives

The final ESB project incentive is based on annual energy savings and peak demand reduction and must be verified by program-defined measurement and verification (M&V) procedures. This may have been achieved through an approved M&V study conducted by the project sponsor or by SDG&E's M&V subcontractor. Project and the program are largely vendor-driven, with generally minimal direct customer contact.

3.1.2 Research Issues

Initial interviews and data collection have identified the following research issues. Depending on findings of planned research activities, efforts will be optimized and not all topics areas here will necessarily be pursued. Based on the staff interviews and review of program material, the following research objectives for the study are to determine:

- Understanding how the program interacts with potential and current participants
  - Characterization of the current commercial retrofit market sector structure
  - Characterization of program projects
  - Identification of market barriers and successful market intervention strategies
  - Perceptions of vendor and participant satisfaction with the program
- Determining effectiveness and possible improvements to the program implementation/process
  - Staff organization structure
  - Perceptions of program procedures
  - Customer applications
  - Energy analysis / savings calculations
  - Incentive structure
  - Verification process
- Analyzing the ability to effectively track and report program results and outcomes
  - Data system usage expectations and actual outcomes, both short and long term
  - Recommendations to increase data systems effectiveness and contributions to program results
- Reviewing recent program implementation changes and how they relate to the following:
  - Process at each stage
  - Savings calculations
  - Staff roles, responsibilities
  - Customer / vendor roles, responsibilities

3.1.3 Data Collection

To address the identified research issues, the evaluation team will collect data as described in this section and summarized in Figure *7*, below.

Data Collection Activity	Respondent Type	Time Per Activity	Number Planned
In-depth interviews	Program staff	30 minutes	5
Telephone surveys	Participants	15 minutes	26 customers
			6 vendors
Telephone surveys	Nonparticipants	15 minutes	25 customers
			5 vendors

Figure 7: Energy Savings Bid Program, Data Collection Activity Summary

Program staff interviews – Beyond the interview already conducted with the program manager, we will identify other key program staff (approximately 5 individuals) and recruit each for an interview that will draw out detailed information about program activities, issues, and goals.

Participant interviews – For each participant, we will conduct a short interview to understand the decision-making participation process, program influence, market guidance, program improvement recommendations, and other program-specific feedback.

Nonparticipant interviews – For each nonparticipant, we will conduct a short interview to collect information on program awareness and influence, as well as better understanding of market practices.

3.1.4 Budget

The estimated budget to perform this evaluation work for the Nonresidential BID programs at both utilities is $51,765 total ($32,094 for SDG&E, $19,671 for SCG) in HMG labor costs and expenses. See Figure 8 for detail.

	Budget
Labor Budget:	$42,165
Data Collection Expenses	$9,600
Total:	$51,765

Figure 8: Energy Savings Bid Program, Evaluation Budget

3.2 Deemed Programs (SW-AgB, ComB, IndB-Deemed)

CPUC codes: SDGE3101, SDGE3106, SDGE3110

3.2.1 Background

Formerly known as Express Efficiency, this is a mature program that offers prescriptive rebates for a variety of energy efficiency measures/products. It has a fair degree of market and customer awareness of its offerings, with AEs and contractors doing a lot of the program marketing. Program managers tend to focus on rebate processing and inspections, since the program is high-volume. Statewide, deemed programs are the non-residential sector energy savings workhorse – accounting for the majority of electricity and gas savings.

3.2.2 Research Issues

The major program issues include measure ex post savings degradation, additional measure complexity in DEER, and identifying new measures, particularly those generating gas savings. Secondary issues include inefficiencies in rebate processing, regulatory complexity, lack of ability to track program savings due to IT constraints, changes in DEER

inputs, and inconsistent inspection policies across SCG and SDG&E (SDG&E does many more.)

Identified research objectives include the following:

- Identify barriers to participation and determine how to address them to increase program participation
  - Determine awareness of the program among non-participants and non-participating contractors and interest in/barriers to participation
  - Obtain feedback from aware/participating customers, contractors and AEs and service technicians on how to market the program to customers and increase participation
  - Identify potential new measures and delivery strategies for the program to consider offering
  - Assess the effectiveness of the use of a 3P contractor to drive participation
  - Determine how the benchmarking requirement is impacting participation
- Identify process improvements that will increase program efficiency and ultimately customer/vendor satisfaction and participation
  - Explore ways to increase the efficiency of rebate processing and improve the turn-around time for customers
  - Identify ways to optimize inspections
  - Obtain feedback from customers, contractors and AEs and service technicians on how to make it easier for customers to apply for rebates
  - Identify ways to address cross-cutting issues through related research, including IT, organizational constraints (e.g., staff turn-over, lack of integration among departments), regulatory complexity and uncertainty, best practices assessment (done in detail for all programs evaluated) (e.g., new gas measures to consider, use of new program delivery strategies such as point of sale, online and streamlined rebate applications)

3.2.3 Data Collection

To address the identified research issues, the evaluation team will conduct the data collection activities described in this section and summarized in Figure 9, below.

Data Collection Activity	Respondent Type	Time Per Activity	Number Planned
Program materials review	NA – rebate forms, processing diagrams/ documents, inspections P&Ps/ diagrams	40 hours	1
Surveys	Participants	30 minutes	500 surveys
	Nonparticipants	See Figure 25, Section 3.11	
Interviews	SDG&E staff – CST/IST manager or representatives, SDG&E audit department, inspections department, rebate processing department	60 minutes	10 interviews
	PG&E and SCE Deemed program managers	30 minutes	2
	Participating vendors (contractors)	30 minutes	30 active vendors, 15 inactive vendors
	Nonparticipating vendors (contractors)	See Section 3.11	
	AEs	See Section 3.11	

Figure 9: Deemed Programs, Data Collection Activity Summary

The planned activities include the following:

- Program materials review – we will obtain and review all relevant program materials, including internal documents that describe the rebate processing and inspection processes.
- Participant survey design and implementation – we will conduct a survey with participating customers to determine their overall satisfaction with the program and identify areas for improvement.
- In-depth interviews – we will conduct in-depth interviews with utility program staff, utility support staff and participating and non-participating vendors (e.g., contractors that promote or could promote the program directly to customers.) We will use the interviews to gain a more in-depth understanding of how the program is delivered, gauge satisfaction with the program, solicit suggestions for improvement and for non-participating vendors we will additionally determine awareness and interest in promoting the program.
- Analysis and Reporting – we will analyze the quantitative and qualitative data/information collected by the above tasks and assess the following issues, which will be documented in a written report section:
  - Rebate processing

- Optimized inspections
- Market barriers
- New measures/delivery strategies
- Other process improvements
- Coordinate with cross-cutting issues assessment for Deemed program

3.2.4 Budget

The estimated budget for evaluating both SCG and SDG&E's Deemed program is $75,000 ($46,500 for SDGE, and $28,500 for SCG) in Evergreen labor costs plus $25,000 (500 @ $50/each) in direct costs for CATI surveys.

	Hours	Budget
Evergreen Labor Budget:		$75,000
Data Collection Expenses :		$25,000
Total:		$100,000

Figure 10: Deemed Programs, Evaluation Budget

Note that this estimate excludes the overarching research tasks that are being conducted across the portfolio – e.g., non-participating customer and non-participating vendor/trade ally interviews.

3.3 Calculated Programs (SW-AgA, ComA, IndA-Calculated)

CPUC codes: SDGE3100, SDGE3105, SDGE3109

3.3.1 Background

This is a statewide non-residential energy efficiency incentive program targeting large customers within the commercial, industrial and agricultural sectors. It provides incentives for customized energy efficiency projects and, in some cases, design/audit assistance. Incentive levels are paid per annual kW/kWh/Therms saved and include a measurement and verification (M&V) procedure. Customers can receive up to 50 percent of incremental measure costs, not to exceed a predetermined project site cap. Savings calculations are generated by program software or alternatively from other engineering sources.

3.3.2 Research Issues

Key issues and research questions to be investigated include those in the following list. Depending on the evaluation team's initial research, efforts will be optimized and not all topics areas here will necessarily be pursued.

- Program goals
  - How have program goals changed over time (are they dynamic)? Have they evolved with the market and regulatory environment, such as with development

of the strategic energy plan or standardized program tracking database (2006 – 2008 evaluation cycle)?
    - How are leads being generated for the program, and what roles do AEs and other sources play in developing projects for the program? Are these channels sufficient to meet program goals?
    - Are PPMs correct for this program and are they being met? What market transformation indicators (MTIs) are applicable to the program?
- Market actors
    - How do trade allies currently view the program and how has this changed over time?
    - Should trade allies be utilized more effectively to meet program goals and, if so, how?
    - What support do participating customers receive from program staff and is it optimal?
- Previous evaluation issues and recommendations
    - Previous evaluation highlighted confusion amongst customers when dealing with multiple staff with varying responsibilities.
        - Do program administrative issues remain a barrier to participation or lead to customer dissatisfaction?
        - What has happened to barriers cited in previous evaluations?
        - Have new barriers developed since the last evaluation?
- Program development
    - How are new technologies being introduced to the program and what is the link to the Portfolio of the Future program?
    - Is there training for new program staff/AEs/trade allies? Is the training adequate?
- Program operations
    - Are QA/QC processes effective?
    - Data tracking
        - Is there a system enabling customers/trade allies/AE to track project status?
        - Is there redundancy between CRM and other trackers? Is CRM sufficient?
        - Are the state-mandated PPMs and MTIs being tracked?
    - How do the SCG and SDGE programs compare to those of other California IOUs or other customized programs nation-wide?

3.3.3 Data Collection & Analysis

To address the identified research issues, the evaluation team will conduct data collection activities described in this section and summarized in Figure 11, below.

Data Collection Activity	Respondent Type	Time Per Activity	Number Planned
Telephone Surveys	Program participant	15-30 minutes	70 surveys
In-depth Interviews	Program participant	30 minutes	10 interviews (pending survey findings)
In-depth Interviews	Drop-out customers	30 minutes	~ 5 interviews (TBD)
In-depth Interview with utility Program Managers	Utility Staff	30 minutes	2
In-depth Interviews	Trade allies	30 minutes	~ 5 interviews (TBD)
Literature Review	NA	NA	NA

Figure 11: Calculated Programs, Data Collection Activity Summary

The in-depth interviews will be semi-structured telephone interviews conducted by experienced consulting staff. Topic guides will be developed and reviewed by Program staff prior to any of the interviews.

The telephone surveys will be conducted by trained interviewing staff using structured computer-assisted telephone interview (CATI) software.

Requested data/access supporting the planned data collection described here includes the following:

- Detailed program documentation (Program Procedures, Book of Business, various available reports, process flowcharts, program advisor handbook)
- QA/QC documentation (if any, customer and trade ally satisfaction)
- Detailed program database from 2009-2010 (and 2011 to date, if possible)
- Participant data from CRM with links to feeder programs
- Follow-up interviews with AEs and market segment managers, as needed
- List of program drop outs
- Customer satisfaction surveys completed by the utilities for quality control

Program Staff and Materials

Follow-up, in-depth interviews with program staff will review the current program logic models and gather feedback about needed model updates to reflect current program practices. In addition, available program materials (database, marketing materials, FAQ brochures) will be reviewed to inform recommendations for their potential improvement.

Relevant Other Customized Programs

A best practices literature review will be conducted to compare and contrast SDGE programs to those of other California IOUs or other custom programs nation-wide. It will include a mixture of internet searches and secondary research of sources such as program websites, the DSIRE database, conference white papers, and regulatory filings.

Program Participants

Although this evaluation will look at all three sectors, our focus will be the industrial sector, which has the largest savings per project and total savings. The telephone surveys will assess program satisfaction and identify barriers to participation from the participants' perspective. Follow-up, in-depth interviews are planned with key customers to be determined by initial survey findings. Figure 12, below, shows planned sampling of participating customers across the SCG and SDG&E Calculated programs.

SCG - AG	SCG - COMM	SCG – IND	SDGE – AG	SDGE - COMM	SDGE – IND
2/7	10/29	30/51	Not Available	25/125	3/14

Figure 12: Calculated Programs, Utility and Sector Sampling (sample/unique customers)

In addition, interviews with drop outs/non-participants can be conducted, provided contact information is available and budget limitations do not arise

Trade Allies

We will coordinate with SDG&E program staff to obtain a list of trade allies for each program and sector. Select trade allies will be interviewed in-depth to assess their perspective on program support and overall program satisfaction as well as to identify any barriers to participation.

AEs

Interviews with AEs will be conducted as part of the overarching surveys.

3.3.4 Budget

The estimated budget to perform planned evaluation work for these programs for SCG and SDGE is $105,000 ($65,000 for SDG&E and $40,000 for SCG) in Navigant labor costs and expenses. Figure 13, below, provides additional detail.

	Hours	Budget
NCI Labor Budget:	500	$80,000
Data Collection Expenses :		$25,000
Total:	500	$105,000

Figure 13: Calculated Programs, Evaluation Budget

3.4 Direct Install Program (SW-ComE)

CPUC Code: SDGE3174

3.4.1 Background

This is a new commercial sector program kicked off in early 2011, implemented by SDG&E to generate kWh savings. It offers free energy efficiency hardware retrofits, through installation contractors, to commercial customers with monthly demand less than 100 kW. The program targets these small businesses in a staged delivery approach, providing program services in specific geographic areas at different times. The intent is to enable a more concentrated and directed, yet comprehensive, program. Supported energy efficiency measures include those related to lighting, air conditioning equipment, refrigeration, and LED exit signs.

Although program savings have not yet been tracked, the program manager expects goals to be met due to the program's popularity.

3.4.2 Research Issues

This evaluation will seek to identify research topics and programmatic issues from a variety of perspectives, including program staff, implementation contractors, Business Improvement Districts (BIDs), program participants, and those that dropped out of the program. Some research topics already identified from initial interviews with program staff include the following:

- Coordination issues between program staff, implementing contractors, local business improvement districts and other California IOUs. Establishing clear territorial boundaries for separate contractors and BIDs has proven to be a challenge. In addition, there is little communication between program staff and their counterparts at other California IOUs.

- Competition with other SDG&E programs and contractors. This is a popular program that gives away measures at no cost to the customer and may undercut other SDG&E program efforts and local contractors who cannot offer services for free.

- Data tracking. This program is a new program and, to date, data has not been tracked due to contractor difficulties in meeting changing CPUC requirements.

3.4.3 Data Collection

The evaluation team will collect data collection as described in this section and summarized in Figure 14, below.

Data Collection Activity	Respondent Type	Time per Activity	Number Planned
Ride-Alongs	Implementation Contractors	0.5 Day	2 contractors
In-Depth Interviews	SDG&E Staff	1 Hour	1
In-Depth Interviews	Implementation Contractors (n=3)	30 Minutes	3
In-Depth Interviews	BID (n=5)	20 Minutes	5
In-Depth Interviews	Near Participants (n=10)	15 Minutes	10
Survey	Program Participants (n=100)	15 -20 Minutes	100

Figure 14: Direct Install Program, Data Collection Activity Summary

In-depth, semi-structured telephone interviews will be conducted by experienced consulting staff. Interview topic guides will be developed and reviewed by Program staff prior to any of the interviews.

The telephone survey will be conducted by trained interviewing staff using structured computer-assisted telephone interview (CATI) software.

Program Staff

The program manager will be interviewed to improve understanding of program processes and to identify, refine and prioritize programmatic evaluation issues. This interview will include requesting information on coordination efforts with BIDs and the implementation contractors, which will help in developing guides for interviews with those stakeholders.

Implementation Contractors

The Commercial Direct Install measures are implemented by three contractors selected in a competitive bidding process. These contractors will be interviewed to increase understanding of program processes and help assess programmatic issues such as program coordination and data tracking from the contractors' perspective.

In addition, evaluation team staff will 'ride-along' with implementation contractors to get firsthand experience in how the program is delivered to SDG&E customers. We will target a half day each with two of the three program contractors.

Business Improvement District (BID) Staff

The Commercial Direct Install program currently coordinates with 18 of the 28 BIDs in the SDG&E service territory. This coordination effort has caused some issues in the program, because the BIDs are concerned that the program delivers measures for free, thus creating competition. We will explore these issues through interviews with BID staff and use collected interview data to develop recommendations to improve program / BID coordination.

Participants

We will coordinate surveying 100 program participants in order to address the following research objectives:

- Understanding customer satisfaction with the program and measures
- Identifying barriers to participation
- Identifying programmatic issues from the customers' perspective
- Collecting feedback on the effectiveness of participant recruitment strategies and contractor follow-through
- Determining whether participants are recruited by multiple program entities (e.g., implementation contractors, BIDs)

Nonparticipants

Nonparticipants are commercial customers approached by the Direct Install contractors but who decline the service. This evaluation will include ten interviews with such customers to understand the reasons for their non-participation. We will conduct short, in-depth interviews with a small sample of these customers to hear their experiences first hand and probe key issues as they are identified during the interview process.

3.4.4 Budget

The estimated budget to perform planned evaluation work is $55,450 in Energy Market Innovations (EMI) labor costs and expenses. Figure 15, below, provides additional detail.

	Hours	**Budget**
EMI Labor Budget:	309	$46,350
Data Collection Expenses:		$9,100
Total:	**309**	**$55,450**

Figure 15: Direct Install Program, Evaluation Budget

3.5 HVAC Tune-up & Quality Installation (3P-NRes01)

CPUC code: SDGE3161

3.5.1 Background

The Non-Residential Heating, Ventilating, and Air Conditioning (HVAC) Tune-up Quality Installation Program (also known as the "Premium Efficiency Cooling Program") encourages SDG&E customers to purchase new high-efficiency HVAC equipment and maintain their existing air conditioner systems to achieve optimal efficiency. To accomplish these goals, the program offers equipment incentives for direct expansion cooling systems and evaporative coolers for early retirement, replacement on burnout, and above-code installations in previously unconditioned spaces. In addition, incentives are available for quality installation and quality maintenance services as well as condenser coil cleaning, evaporator coil cleaning and economizer repairs.

The program is implemented by Conservation Services Group, who is responsible for all program marketing, recruitment, and processing. The program works closely with trade allies and distributors to coordinate marketing efforts and ensure that incentives are appropriate and readily available to potential customers. In addition, the program offers technical assistance to contractors and end-users in the form of payback period and energy savings calculators.

3.5.2 Research Issues

The evaluation team will coordinate with Southern California Edison (SCE), particularly Brett Close, on this effort to reduce overlap.

During interviews with implementation and program management staff, the following key researchable issues were identified:

- How satisfied are participants with the program and with the contractors that work with the program?
- Are the program rebates effective at encouraging participants to conduct quality maintenance when they otherwise would not have?
- How satisfied are the trade allies with the program? What additional support could the program offer to trade allies that might increase program participation?
- How can the program most effectively incentivize gas saving measures? Are there technologies available that currently are not included in the program design?
- Does the program logic model accurately reflect the way the program is currently operating? If not, how should they be altered?

3.5.3 Data Collection & Analysis

To address the identified research issues, the evaluation team will collect data as described in this section and summarized in Figure 16, below.

Data Collection Activity	Respondent Type	Time Per Activity	Number Planned
In-depth interviews	Trade allies	30 minutes	10-15
In-depth interviews	Program staff	20 minutes	1
Telephone surveys	Participants	15 minutes	70 installation
			70 maintenance
Literature Review	NA	NA	NA

Figure 16: HVAC Tune-Up and Quality Installation, Data Collection Activity Summary

The in-depth interviews will be semi-structured telephone interviews conducted by experienced consulting staff. Topic guides will be developed and reviewed by Program staff prior to any of the interviews.

The telephone surveys will be conducted by trained interviewing staff using structured computer-assisted telephone interview (CATI) software.

Trade Allies

Interviews with trade allies will identify barriers to participation and any new technologies that should be included in the program. These interviews will elicit feedback about program support and assess overall program satisfaction from the trade allies' perspective. Follow-up interviews with program staff will review the current program logic models and gather feedback about what changes are needed to in order to update the models to reflect current program practices.

Participants

The structured CATI interview with program participants will assess program satisfaction, identify barriers to participation, and explore how the program affected their existing maintenance plans. In order to evaluate both equipment installation and maintenance aspects of the program, the participant sample will be stratified by what measure was incented through the program. A random sample of 70 participants that installed equipment and 70 participants that conducted maintenance through the program will be selected for interviews.

Relevant Other HVAC Programs and Potential Measures

A literature review will be conducted to determine how other HVAC programs are structured across the country, including program incentives and marketing practices. It will also seek to identify other measures that the program may consider including. Review will include a mixture of internet searches and secondary research of sources such as program websites, the DSIRE database, conference white papers, and regulatory filings.

3.5.4 Budget

The estimated budget to perform planned evaluation work for this program is $36,450 in direct Tetra Tech labor costs and expenses. Expenses for conducting the CATI participant surveys are estimated at $8,400.

	Budget
Tetra Tech Labor Budget:	$36,450
Data Collection Expenses:	$8,400
Total:	**$44,850**

Figure 17: HVAC Tune-up & Quality Installation Program, Evaluation Budget

3.6 On-Bill Financing (Local05, Local01-OBF)

CPUC codes: SDGE3139

3.6.1 Background

The On-Bill Financing (OBF) program is a local, non-resource program providing zero-interest loans to participants of SDG&E's nonresidential programs. This program is marketed through vendors. OBF applicants download and complete an online application, which precedes a pre-inspection process by SDG&E engineers to estimate savings calculations. SDG&E produces a loan agreement that is signed by both the program participant and vendor before installation of energy efficiency measures. Loan periods are five years for commercial and industrial customers, and 10 years for tax payer-funded organizations. Minimum and maximum loan values are $5,000 and $50,000, respectively.

The OBF program maintains an online vendor handbook. However, the program manager is concerned with the high amount of application rework caused by "poorly trained vendors." In order to reduce application rework the OBF program manager is considering the use of trained administrative vendors.

3.6.2 Research Issues

Key research issues identified for this evaluation include the following:

- Describe vendors' use/experiences with the online vendor handbook
- Investigate vendors' understanding of the process for enrolling participants in OBF program
- Describe reasons vendors have for not participating in program
- Explore how vendors coordinate activities with OBF program staff
- Describe how vendors are marketing OBF and how they are using it to drive participation in resource based programs
- Explore end-users' reasons for participating or not participating in OBF

3.6.3 Data Collection & Analysis

To address the identified research issues the evaluation team will seek information on program processes from SDG&E program staff, vendors, and OBF participants and nonparticipants as described in this section and summarized in Figure 18, below.

Data Collection Activity	Respondent Type	Hours / Activity	Number Planned	Evaluation Team Member
Conduct & Code Depth Interviews	Vendor Staff	3	20	Research Into Action
Conduct & Code Depth Interviews	Program Staff	3	3	Research Into Action
Conduct Surveys	Participants	0.1	37	EMI / Navigant – as part of Deemed and Calculated interviews
Conduct Surveys	Participants	0.1	41	EMI / Navigant – as part of Deemed and Calculated interviews

Figure 18: On-Bill Financing, Data Collection Activity Summary

We will submit a draft of each interview guide to the SDG&E evaluation manager for review and will incorporate comments into the final interview guides.

Upon finalization of the interview guides, we will contact the SDG&E program manager to arrange to notify the vendor program managers and selected program staff of the interviews and obtain their cooperation.

Once the interviewees are notified, we will contact them first by email and then by telephone to schedule interviews. We will explain the purpose of the interview and the expected duration. At the appointed time, we will contact the interviewees and complete the interviews.

We will submit a draft of each survey instrument to the SDG&E evaluation manager for review and will incorporate comments into the final instruments. Upon finalization of the instruments, we will contact the selected vendors first by email and then by telephone to schedule interviews. We will explain the purpose of the interview and the expected duration. At the appointed time, we will contact the interviewees and complete the interviews

Program Staff

We will interview three key program staff, including the SDG&E Energy Program Supervisor for nonresidential programs, who oversees the OBF program, and up to two other program staff identified by the Energy Program Supervisor. These may include staff who evaluate loan applications submitted by vendors and participants.

Program staff interviews are expected to take 15-20 minutes and will, at a minimum, address the following topics:

- Role and responsibilities
- Communication with vendor staff
- Issues that lead to applications requiring rework

Vendors

A sample of 20 program participating vendors, 20 vendors qualified to promote the program but have not signed up customers, and 134 OBF participants and nonparticipants will be surveyed to learn of their program experience and to understand any barriers to participation.

We will request a list of certified OBF vendors from the SDG&E Energy Program Supervisor. We will develop a vendor survey instrument and a sampling plan for the vendor survey. Vendor surveys are expected to take 15-20 minutes and will, at a minimum, address the following topics:

- Roles and responsibilities
- Communication with program staff
- Marketing activities
- Training and certification
- Experiences using the online application form
- Issues that lead to applications requiring rework

Program Participants and Nonparticipants

"Participants" are customers who participated in the Calculated or Deemed programs and applied for OBF financing. "Nonparticipants" are participants in the Calculated or Deemed programs who did not apply for OBF financing.

We will generate survey items to be included in the surveys for the SDG&E Calculated and Deemed programs, for which other evaluation team members are surveying approximately 680 participants. Six percent of the Calculated and Deemed population also participate in the OBF program. There were roughly 419 OBF participants in April 2011. Given the proportion of OBF participants in the main population, six percent of the Calculated and Deemed survey sample should yield the 37 survey completions by OBF participants and 41 OBF nonparticipants to achieve a 90/10 confidence.

We will develop separate survey questions for the participants and nonparticipants. The questions are expected to add 2-3 minutes to the Calculated and Deemed program surveys. Through interviewing OBF participants, we will learn:

- How participants learned of the program
- Whether OBF financing encouraged participants to acquire more measures than they would have otherwise
- Which company personnel were involved in the decision to participate
- If a longer or shorter loan period would be preferable

Questions of nonparticipants will address the following:

- Would OBF financing have led Calculated or Deemed program participants to carry out larger EE projects?
- Were nonparticipants offered OBF opportunities? If so, was there something about the offer they did not like?
- Are OBF loan maximum and minimum values and loan periods acceptable to customers' needs?

We will code open-ended responses from program and vendor staff using software designed specifically for qualitative analysis. We will carry out quantitative analyses of close-ended responses with SPSS. We will code open-ended responses into content categories for either qualitative or quantitative analysis.

3.6.4 Budget

The estimated budget to perform planned evaluation work for this program is $20,308 in Research Into Action labor costs and expenses.

3.7 Non-Residential Audits (SW-AgC, ComC, IndC)

CPUC codes: SDGE3102, SDGE3107, SDGE3111

3.7.1 Background

The Non-Residential Audits (NRA) program is designed to deliver a coordinated statewide integrated demand side management that promotes energy efficiency, demand response, distributed generation and emerging technologies. According to the program manager, the SDG&E Non-residential Audit programs (i.e., SDGE3102, SDGE3107, SDGE3111) are not currently operating; audits are being conducted through other programs. However, we will investigate how other audit-type programs are integrated into the portfolio: Remote Audits (e.g., Business Energy Assessments, Lodging Energy Efficiency Program – LEEP, Healthcare Energy Efficiency Program – HEEP, Retrocommissioning - RCx).

The Business Energy Assessment is designed to be self-administered with the aid of an SDG&E-provided guide—an interactive website, mail-in materials, or telephone support. This element will be supplemented by a statewide audit tool for small commercial customers in 2012. LEEP and HEEP target lodging and healthcare facilities, respectively, and were recently changed to nonresource programs. RCx is the most comprehensive and involved audit program component and is run and evaluated separately as described in Section 3.8 of this document.

3.7.2 Research Issues

The Non-Residential Audit programs are non-resource programs and therefore, do not directly claim savings credits. Instead, these programs are intended to act as "funnels" or "feeders", encouraging participants to take part in other resource programs (e.g., the Calculated or Deemed programs). As "feeder" programs, initial interviews with program staff identified audit quality and conversion rates as two key areas of concern that can be

addressed by the evaluation. With these concerns in mind, our evaluation will address the following research questions:

- Are the program's marketing efforts effective? Are there any sub-sectors that are not being reached?
- Are the audits offered through the program comprehensive and accurate? If not, how can they be improved?
- Are the findings from the audits easily understood by participants? Do they offer clear guidance on next steps?
- Do the audit findings offer clear direction on which additional programs from which customers may benefit?
- How could the program efficiently track which audit participants move on to participate in other resource programs?
- What is the current estimated conversion rate? How could the program improve this rate?
- How satisfied are customers with the Non-Residential Audit offerings?

3.7.3 Data Collection & Analysis

To address the identified research issues, the evaluation team will conduct the data collection activities described in this section and summarized in detailed in Figure 19, below. There are no program participant interviews planned, because this program is not operating (and therefore has no participants).

Data Collection Activity	Respondent Type	Time Per Activity	Number Planned
In-depth interviews	Audit Providers	20 minutes	10 per IOU
In-depth interviews	AEs	60 minutes	2 per IOU
Database Analysis	NA	NA	NA

Figure 19: Non-Residential Audits, Data Collection Activity Summary

The in-depth interviews will be semi-structured telephone interviews conducted by experienced consulting staff. Topic guides will be developed and reviewed by Program staff prior to any of the interviews.

Audit Providers

Audit providers will be interviewed to identify audit process barriers and assess challenges that exist to conducting comprehensive audits.

Participants

Program participants will be interviewed to assess their satisfaction with the audit process, identify barriers to participation, and classify the most effective marketing channels for reaching these customers. These interviews will also assess the audit program's conversion

rate by asking which, if any, additional programs the respondent has participated in as a result of the audit program.

AEs

Interviews with the AEs (as part of cross-cutting interviews with this group) will assess their perception of the audit quality and conversion rates.

Data Management Tools

We also plan to review the program manager's spreadsheet tracking audit activity in conjunction with the CRM database review. This review will attempt to identify efficient and effective methods for accurately assessing the conversion rate without follow-up interviews with program participants.

3.7.4 Budget

The estimated budget to perform planned evaluation work for SCG and SDG&E Non-Residential Audit programs is $31,070 total ($19,263 for SDG&E, $11,807 for SCG) in direct Tetra Tech labor costs and expenses.

3.8 Retrocommissioning (3P-NRes13)

CPUC code: SDGE3170

3.8.1 Background

This 3P program provides services and incentives to support retrocommissioning of commercial buildings larger than 100,000 square feet in SDG&E territory. It targets all commercial sectors, focusing on office, healthcare, hospitality, high-tech, and retail customers.

The program recruits potential candidates, screens and benchmarks buildings to determine eligibility, qualifies RCx providers, and oversees the RCx investigation and process. Following the audit investigation, the program supports customers in implementing identified measures to maximize energy savings. When implementation is complete, the RCx provider conducts measure verification and trains building operators in maintaining the implemented measures and their associated energy savings over time. The program offering includes installing performance tracking and monitoring equipment in approximately one-third of the projects to provide ongoing monitoring and savings verification.

The RCx program was last evaluated in the 2006 – 2008 program cycle. It is over-subscribed and, based on program staff interviews, operating smoothly.

3.8.2 Research Issues

The process for completing an RCx project is complex, comprising several successive phases—each of which must be completed before the next can begin. The process also

involves many different stakeholders including program staff, implementer staff, RCx providers, building owners, and building operation and maintenance personnel. RCx programs face unique challenges due to this structural complexity. In order to help SDG&E address such challenges, the evaluation will address the following research questions:

- What, if any, bottlenecks exists as part of the RCx process? What can the Program do to alleviate these bottlenecks?
- How effectively does SDG&E work with the 3P implementer of the Program and the RCx providers? What can the Company do to improve coordination?
- What additional support is needed by the 3P implementer to efficiently deliver the Program?
- How does the Program compare to other RCx programs across the country? Is the Program following "best practices"?
- Why do customers initiate RCx projects and what are the common barriers to implementation? What can the program do to overcome these barriers?

3.8.3 Data Collection

To address the identified research issues, the evaluation team will conduct the data collection activities described in this section and summarized in Figure 20, below.

Data Collection Activity	Respondent Type	Time Per Activity	Number Planned
In-depth interviews	RCx providers	30 minutes	5
In-depth interviews	AEs	60 minutes	2
Literature Review	NA	NA	10

Figure 20: RCx Program, Data Collection Activity Summary

The in-depth interviews will be semi-structured telephone interviews conducted by experienced consulting staff. Topic guides will be developed and reviewed by Program staff prior to any of the interviews.

RCx Providers

RCx providers will be interviewed to assess their satisfaction with the program, identify what additional support is needed from the 3P implementer or SDG&E, and detail marketing practices and common customer barriers to conducting RCx projects. In addition, providers will be asked about their participation in other RCx programs across the country in order to inform the SDG&E program design.

AEs

AEs interviews (as part of cross-programs interviews) will establish how best SDG&E staff can coordinate with and assist the RCx 3P implementer.

Relevant Other RCx Programs

A literature review will be conducted to determine how other RCx programs are structured across the country, including program incentives and marketing practices. It will include a mixture of internet searches and secondary research of sources such as program websites, the DSIRE database, conference white papers, and regulatory filings.

3.8.4 Budget

The estimated budget to perform planned evaluation work for this program is $23,600 in Tetra Tech labor costs and expenses.

3.9 SaveGas – Hot Water Control (3P-NRes02, 3P-Xc02)

CPUC codes: SDGE3162

3.9.1 Background

This third-party (3P) program implements domestic hot water control systems in hotels, motels, resorts, senior care facilities, and other associated hot water end uses. It offers direct installation of measures to overcome the market barriers of low consumer information and finances and lack of available installation providers. SDG&E AEs identify potential targets in the SDG&E database. The 3P implementer coordinates the activities of on-site technicians (auditors) and installation contractors.

The program manager explained that the program has “low participation” rates, and errors in site data prevent the utility from claiming program savings.

3.9.2 Research Issues

Research objectives include the following:

- Examine SDG&E’s oversight of the 3P implementer
- Assess the quality of the 3P implementation firm’s marketing and online demonstration processes
- Investigate the reasons for the errors in site data and what can be done to improve site data
- Investigate participants’ and non-participants’ experience with, and perceptions of, the program. In particular, investigate reasons for the low participation rates.

This evaluation also will investigate, as a cross-cutting issue, the ability of the 3P implementer to help achieve SDG&E’s savings goals.

3.9.3 Data Collection

We will seek information on program processes from SDG&E program and the 3P implementer staff, program participants, and nonparticipants to which the implementer has marketed the program but who have not enrolled. Key implementation staff from whom we will solicit information include the SDG&E program manager (additional questions

beyond those already covered in the preliminary interview held in May), the 3P implementation manager, the SDG&E AEs assigned to the market segments this program serves, and the technicians that perform onsite surveys of hot water systems.
We will contact the SDG&E and 3P program managers as well as identify appropriate AEs to interview. We expect that interviewing a sample of four technicians and four AEs will provide a reasonable range of responses from each group. Figure 21, below, summarizes the data collection plan.

Data Collection Activity	Respondent Type	Hours / Activity	Number Planned
Conduct & Code Depth Interviews	3P Staff	3	2
Conduct & Code Depth Interviews	AE	3	6
Conduct Surveys	Participants/Partial	1	35

Figure 21: SaveGas – Hot Water Control, Data Collection Activity Summary

Program Staff

We will first develop separate interview guides for the program managers (beyond issues already discussed in the preliminary interview held in May), AEs, and field technicians. Upon finalization of the interview guides, we will contact the SDG&E program manager to arrange to notify the 3P program manager and technicians of the interviews to obtain their cooperation. At the same time, we will discuss with the 3P program manager the need for a list of all organizations that the implementer has contacted to attempt to enroll in the program, including both those that have had enrolled and those that declined. AEs will be interviewed as part of the overarching interviews.

Once the interviewees are notified, we will contact them first by email and then by telephone to schedule interviews. We will explain the purpose of the interview and the expected duration. At the appointed time, we will complete the interviews.

Program manager interviews are expected to take 45-60 minutes and will, at a minimum, address the following topics:

- Role and responsibilities
- Communication with other program staff and stakeholders
- Program progress
- Marketing activities, including line program demonstration
- The role of AEs, 3P staff experience in working with AEs, and issues to explore in interviews with AEs
- 3P's process for scheduling audits and completing installations
- Procedures for ensuring quality site data
- 3P integration (cross-cutting issue)

- Barriers to enrollment (including those not otherwise addressed)

AE interviews will be conducted so that they address various programs. For this program, they will address the following topics:

- How AEs identify high-value targets in the CRM database
- How AEs resolve customer issues relating to the program
- AEs' experiences working with the 3P (cross-cutting issue)

Technician interviews are expected to take 15-20 minutes and will, at a minimum, address the following topics:

- Questions potential participants have during the audit and how those are answered
- What technicians believe could be done to increase participation rate, including what additional role the technician could play
- Challenges and workaround activities with the audit process
- Procedures for ensuring quality site data

We will conduct phone interviews of SDG&E and 3P implementation firm staff from a list of contacts provided by SDG&E. During our implementation staff interviews, we will request contact information for program audit technicians. If necessary, we will work with the SDG&E evaluation manager to identify appropriate criteria for selecting technicians to interview.

Program Participants and Nonparticipants

The program targets portfolio asset managers or persons responsible for multiple utility accounts across a range of commercial property types (hotels, senior homes, resorts, etc.). The PIP sets a target of installing hot water controls in 3,000 hotel or motel rooms, 1,200 senior care dwelling units, and 15 laundries or kitchens. This may amount to approximately 60 buildings, but probably fewer building owners. However, the program so far has enrolled only two participants. We will attempt to interview those participants and any others (up to five, total) that have enrolled since.

Defining the nonparticipant population as those targeted for enrollment who have declined and assuming that population is as many as 100 building owners to date, we will need to survey up to 30 nonparticipants to achieve 90/10 confidence/precision.

We will develop survey guides for participants and nonparticipants and submit them to SDG&E for review. These telephone surveys will likely require 15-20 minutes to complete and will, at a minimum include the following topics:

- How participants and nonparticipants were recruited to the program
- Participants' experience with the online demonstration
- Participants' experience with the staff and the enrollment process
- Reasons why nonparticipants did not participate

We will require a contact list of program participants and nonparticipants from the 3P implementation firm. To prevent sample bias, we will randomize the lists prior to drawing samples.

AEs and Contractors/Vendors

In addition to interviewing SDG&E AEs assigned to market segments served by this program, we will draft two to three questions about 3P integration with SDG&E core programs to include in overarching surveys of AEs and contractors/vendors.

3.9.4 Analysis

We will code open-ended responses from the staff, AE, and technician interviews using software designed specifically for qualitative analysis. We will conduct phone interviewers with a web-based Computer Assisted Telephone Interviewing (CATI) tool. We will carry out quantitative analyses of close-ended responses with SPSS. We will code open-ended responses into content categories for either qualitative or quantitative analysis.

We will document and include our results as part of the overall evaluation report. Our discussion will include a brief introduction and description of the methodology, followed by results and recommendations. One section will concern an evaluation of program implementation and processes written from our analysis of interviews with SDG&E staff, 3P staff, and technicians. A second section will concern marketing effectiveness and participant experiences based on analysis of participant and partial participant survey data.

3.9.5 Budget

The estimated budget to perform planned evaluation work for the program at both SDGE and SCG is $56,623 ($29,211 for SDGE, $27,412 for SCG) in Research Into Action labor costs and expenses. Note that the budgets for the two utilities will be roughly equal for this program evaluation, because this program focuses on gas savings. (For most other evaluations shared by both utilities, the level of effort will be higher for SDGE.)

	Budget
Research Into Action Labor Budget:	$56,623
Data Collection Expenses :	$0
	$56,623

Figure 22: SaveGas – Hot Water Control, Evaluation Budget

3.10 Comprehensive Industrial Energy Efficiency (3P-NRes12)

CPUC code: SDGE3169

3.10.1 Background

This is a 3P non-resource program in its first year, piloted last year as the “Investment Grade Audit Pilot Program.” It targets both demand reduction and energy savings by providing large industrial customers with comprehensive, facility-wide audits, with the intent that

they lead to energy projects and program participation. Audit quantity targets include eight customers in 2010, twelve in 2011, and twenty in 2012. Three-year savings goals are 241,769 kWh, 20 kW and 300,000 therms.

Additional program objectives include operational savings and continuous improvement through Monitoring and Targeting (M&T) services to establish benchmarks and goals for kWh per unit of production and other metrics. Program success depends on the contractor establishing positive working relationships with company account representatives to identify and develop eligible customers.

3.10.2 Research Issues

The evaluation team has rated this program as a high priority, for reasons including the following potential research issues:

- Implementation contractor (IC) incentive structure. The implementation contractor (IC), Onsite Energy, is paid based on audit-estimated t rather than actual savings achieved. This incents the implementation contractor to overstate the efficiency potential of the job. One possible recommendation we will explore is to change the incentive structure to control the amount paid to the implementation contractor.
- Responsiveness of IC. Onsite Energy has been unresponsive to the utility program manager's requests for supporting information for invoices.
- Data tracking and reporting. There is not a good tracking mechanism for audit results or customer information.
- Program marketing. Onsite has already billed the full amount for program marketing ($240K over three years) and administration for the full three years of the program cycle.
- IC general contractor conflict of interest. Onsite does the investment grade audit and then pitches themselves as the general contractor to do the work. Onsite does not win 100% of the jobs. Even though contractors get an incentive for conversions, there is concern that they do not provide adequate follow up on jobs they do not win.
- Savings and effectiveness
  - Is program on track to meet savings goals and audit targets?
  - How are savings measured?
  - Effectiveness of program staff, program contractors, and trade allies
  - Perceptions of program effectiveness and contributions
  - Expectations and actual outcomes, both short and long term

3.10.3 Data Collection

In-depth, semi-structured telephone interviews will be conducted by experienced consulting staff. Interview topic guides will be developed and reviewed by Program staff prior to any of the interviews. Figure 23, below, summarizes the interview plan.

Data Collection Activity	Respondent Type	Time Per Activity	Number Planned
In-Depth Interviews	SDG&E's 3P vendor Onsite (IC), Other Contractors, SDG&E Account Representatives, Customers, other stakeholders TBD	60 minutes	5 interviews, total

Figure 23: Comprehensive Industrial Energy Efficiency, Data Collection Activity Summary

3.10.4 Analysis and Reporting

We will analyze and report results from the interviews described above.

3.10.5 Budget

The estimated budget to perform planned evaluation work is $5,000 in Navigant labor costs. Figure 24, below, provides additional detail.

	Hours	Budget
NCI Labor Budget:	30	$5,000
Expenses:		$0
Total:	**30**	**$5,000**

Figure 24: Comprehensive Industrial Energy Efficiency Program, Evaluation Budget

3.11 Overarching Surveys and Interviews

3.11.1 Background

The evaluation team will conduct surveys and interviews for several key parties to the SDG&E portfolio that affect various programs and cross-cutting issues. Questions will be compiled across all program-specific and cross-cutting issues work plans.

3.11.2 Research issues

Research questions for the overarching surveys include the following:

- Nonparticipating customers:
  - Awareness/perceptions of the program
  - Interest in participating
  - Interaction with vendors

- Barriers to participation

- Measure developers
  - How they work with the EE programs, what is their process for identifying potential new measures to add to the portfolio, what resources do they use to identify new measures
  - If they consider measures with high kWh savings, high therm savings, or both
  - Suggestions for new measures for programs
  - Barriers to getting new measures into programs
  - Suggestions for improving the process to get more measures and integrate them more quickly into programs
- Other SDG&E staff
  - Customer application process
  - Incentive structure
  - Verification process
  - Data system usage expectations and actual outcomes
- Vendor relations/liaison
  - how often and how do they communicate with vendors
  - how do they identify potential vendors, what sources do they use
  - what types of vendors seem to be most/least responsive and why
  - How do they target customers? Do they target customers with high therm savings, or do they focus primarily on kWh?
  - what type of feedback do they typically get from vendors about each program evaluated
  - how could more vendors be reached by SDG&E
  - how to increase the number of participating vendors and getting those that have signed agreements to get customers to install program-qualifying equipment
  - suggestions for improving the each program evaluated to increase participation
- Account Executives
  - How do they target customers? Do they target customers with high therm savings, or do they focus primarily on kWh?
  - How do you typically educate customers about the EE programs available to them? How often do you do this?
  - Are customers typically aware of the programs that are available from SDGE before you speak with them?
  - In your experience, how effective are the marketing materials provided by the programs? Which programs' materials are working well? Which could use the most improvement?
  - In your experience, how do customers most prefer to learn about EE programs available to them?
  - Suggestions for improving the each program evaluated to increase participation
- CPUC staff
  - Awareness of the regulatory burden on program staff and how that has changed (i.e., increased) over time, e.g., estimate of how much time they think program staff spend on various regulatory issues

- Justification for IOU program staff time spent on the various regulatory issues – what are the objectives for each and expected outcomes, do those outcomes link to higher energy savings, strategic plan, etc.
- What they think are the highest priority regulatory items that program staff should prioritize (and which should be lower priority)
- Feedback on their relationship with IOU program managers, what type of relationship do they have (is it contentious, are there open lines of communication, is it productive), what are the main reasons that CPUC and IOU program staff interact, how the relationship could be improved

◆ Nonparticipating vendors: Same as non-participating customers

3.11.3 Data Collection

The proposed interviews and surveys include the following:

Data Collection Activity	Respondent Type	Time Per Activity	Number Planned
Surveys	Nonparticipants	30 minutes	200 across portfolio
Interviews	SDG&E staff – measure developers, vendor relations/liaison	60 minutes	5 across portfolio
	Portfolio level CPUC staff	30 minutes	5 across portfolio
	Nonparticipating vendors (contractors)	30 minutes	40 across portfolio
	AEs	TBD – forum or interviews	TBD

Figure 25: Overarching Data Collection Recommendations

3.11.4 Budget

The approximate budget for the overarching interviews and surveys for both SDG&E and SCG is $28,710 ($17,944 for SDGE, $10,766 for SCG).

4. Cross-cutting Issues Work Plans

In addition to evaluating specific programs, our team will investigate selected issues that cut across the portfolio to affect multiple programs. These cross-cutting issues were rated by SDG&E staff and evaluators as high priority research topics. They will be evaluated jointly for SDG&E and SCG, because all cross-cutting issues relate to both utilities. Issues are listed according to evaluation budget (highest to lowest).

4.1 IT and Data Tracking Issues

4.1.1 Background

Through initial data collection, the evaluation team has identified widespread difficulty and problems with program databases, especially the customer tracking database (CRM). While portfolio-level SDG&E staff indicate that dumping the entire system is probably not an option, this cross-cutting topic will address the portfolio-wide issues with data management and tracking in an effort to identify potential for improvement.

Overall, the database tracking system is burdened by a lack of standardization and an abundance of customization. Quality control functions are not enabled within CRM due to customization. Unclear data rules and field names lead to inconsistent interpretations of their intent, and thus data is not uniform. (Based on preliminary staff interviews, the IT department is currently developing a data dictionary to increase uniformity.) Many program AE managers track their program activities using Excel spreadsheets they created. Such tracking of program data individually and then entering it into CRM creates additional work for staff, and increases the likelihood of errors and/or incomplete information transfer. Audit program data is not tracked at all in CRM—program managers manually track conversion of audit recommendations to core program projects.

4.1.2 Research Issues

Based on initial data collection and the challenges described above, the evaluation team has identified the following research issues for this cross-cutting topic.

- Perceptions of data systems effectiveness
- Data systems expected and actual usage, both short and long term
  - Types of program data elements
  - Types of program data reporting
- Brief review of current data dictionary project
- Recommendations for better integration of audit type programs
- Recommendations to increase data system effectiveness and its contribution to program results

4.1.3 Data Collection

Planned data collection activities are summarized in Figure 26, below.

Data Collection Activity	Respondent Type	Time Per Activity	Number Planned
Interviews	IT staff; Sector managers	20 minutes	18 interviews
Online Surveys	Program Managers	5 minutes	40 surveys

Figure 26: IT and Data Tracking, Data Collection Activity Summary

4.1.4 Budget

The estimated budget to perform planned evaluation work for this cross-cutting topic is $42,440 total ($26,313 for SDG&E, $15,827 for SCG) in HMG labor costs and expenses. Figure 27, below, provides additional detail.

	Hours	Budget
Labor Budget:	312	$41,440
Data Collection Expenses		$1,000
Total:	312	$42,440

Figure 27: IT and Data Tracking, Evaluation Budget

4.2 Program Best Practices

4.2.1 Background

In this study, we will develop a best practices review for all SDG&E non-residential programs being evaluated at the medium to high level. For programs that were evaluated as part of the 2006-08 Non-Residential Evaluation, we will update the review. Each evaluation chapter will contain a review assessing individual program adherence to industry best practices. Best practices will be based on findings in the SDG&E 2006-2008 Non-Residential Evaluation, the 2004 National Energy Efficiency Best Practices Study, and primary research.

4.2.2 Research Issues

Research questions for this cross-cutting best practice analysis include the following:

- Does the overall SDG&E non-residential portfolio adhere to identified best practices for energy-efficiency programs?
- Do individual programs within the non-residential portfolio observe identified best practices for energy-efficiency programs?

Program implementation will be assessed based on common best practices for the five main program types in the SDG&E non-residential portfolio:

1. Calculated programs (including BID program)
2. Deemed programs
3. Audit programs
4. Direct Install
5. HVAC

3P programs will be included in these categories where possible, but we will also separately review best practices in implementing 3P programs.

For programs that may not fit cleanly into the above categories, best practices will be developed, as appropriate, on an ad hoc basis. Because the evaluation budget does not allow for an in-depth review of best practices for every program, the priority and level of effort of the best practices assessment for each program will be based on results of the individual program evaluations and discussions with SDG&E staff.

The evaluation team will conclude the best practice review with an overview of the non-residential portfolio's overall adherence to the identified best practices.

4.2.3 Data Collection and Analysis

To address the identified research issues, the evaluation team will collect data as described in this section and summarized in Figure 28, below.

Data Collection Activity	Respondent Type	Time per Activity	Number Planned	Expenses
In-Depth Interviews	SDG&E staff, evaluation contractors and other industry experts	20 Minutes	15	N/A

Figure 28: Review of Program Best Practices, Data Collection Activity Summary

The primary data collection activity will be interviews with SDG&E staff, evaluation team members, and other appropriate industry experts to help refine and update the best practices used for the comparison analysis.

Data collection and analysis tasks include the following:

- Review previous evaluation
  - We will perform a detailed review of the 06-08 SDG&E process evaluation, matching current programs to those previously assessed.
- Identify, document, and update applicable best practices
  - Best practices outlined in the above previous evaluation will serve as the starting point for our analysis, where possible and appropriate.

- For new programs or those not explicitly assessed in the 06-08 evaluation, we will identify the most applicable set of best practices. Where possible, best practices related to one of the five categories listed in the above section will be used.
- We will interview program staff, evaluation team members, and other industry experts to support updating best practices. For programs where established best practices are not apparent, our team will develop them based on the 2004 best practices study and relevant primary research.

- Compare current programs' operation with documented best practices
  - Once a set of best practices is established for each relevant program type, we will assess the level at which programs evaluated by the team adhere to them.
- Cross-cutting analysis
  - Finally, we will synthesize program-specific results and assess the level of best practice adherence across the entire non-residential portfolio.

4.2.4 Budget

The estimated budget to perform planned evaluation work for this cross-cutting topic is $35,250 total ($21,855 for SDG&E, $13,395 for SCG) in Energy Market Innovations (EMI) labor costs and expenses. Figure 29, below, provides additional detail.

	Hours	Budget
EMI Labor Budget:	235	$35,250
Data Collection Expenses:		$0
Total:	**235**	**$35,250**

Figure 29: Review of Program Best Practices, Evaluation Budget

4.3 Regulatory Issues

4.3.1 Background

Regulatory complexity and burden arose as a cross-cutting research issue during interviews with SDG&E staff. Interviewees mentioned that a substantial portion of time is spent meeting regulatory requirements, which often shift and evolve over time. For example, there were significant complaints about the new DEER measure reporting requirements and the additional work required to meet them. Program staff indicate they are uncertain of what should be prioritized and have little time to actually run their program.

Often, staff are not able to proactively manage the regulatory priorities – such as PPMs – which are being reported in aggregate by a few EM&V staff as they are due. Staff would like

the opportunity to better utilize such metrics for understanding their market and managing their program.

4.3.2 Research Issues

Based on initial data collection, the evaluation team has identified the following research issues and objectives for this cross-cutting topic.

- Identify and document the major regulatory requirements and priorities that impact program staff, and estimate how much time is dedicated to them
- Determine the objectives (or spirit) of the regulatory requirements/priorities and assess whether those goals are being met, and if not, why not
- Determine if/how the regulatory burden on program managers could be either reduced or better managed, to the benefit of program results

4.3.3 Data Collection

Planned data collection activities are outlined in this section and in Figure 30, below.

Data Collection Activity	Respondent Type	Time Per Activity	Number Planned
Document review	NA – review regulatory filings, interview notes	80 hours	1
Database review	NA – review DEER, other regulatory reporting databases/reports	40 hours	1
Interviews	Evaluators on our team – ask them to interview program staff with a short battery; discuss results	60 minutes	6
	SDG&E staff – key senior/policy staff, follow-up	60 minutes	5
	CPUC ED staff	60 minutes	2

Figure 30: Regulatory Issues, Data Collection Activity Summary

Tasks to complete data collection for this topic include the following:

- Regulatory document and database review – we will request and review relevant documents such as filings and internal documents that relate to utility program staff regulatory (e.g., CPUC mandated) requirements and responsibilities to gain an in-depth understanding of the objectives, intended outcomes and impact on staff workload.
- In-depth interviews – we will review notes from evaluator interviews with program staff and follow-up with informal interviews with evaluators to gain the utility program staff perspective on the value and workload impact from meeting various regulatory requirements. We may also follow-up with senior utility staff and CPUC

Energy Division staff to supplement our understanding and obtain additional perspective.

4.3.4 Budget

The estimated budget to perform planned evaluation work for this cross-cutting topic is $30,000 total ($18,600 for SDG&E, $11,400 for SoCal Gas) in Evergreen Economics labor costs and expenses. Figure 31, below, provides a summary.

	Budget
Labor Budget:	$30,000
Data Collection Expenses	$0
Total:	$30,000

Figure 31: Regulatory Issues, Evaluation Budget

4.4 Organizational Issues

4.4.1 Background

The primary purpose of this cross-cutting topic is to identify issues that persist across numerous or all of the SDG&E non-residential programs and to identify potential means of resolving them.

4.4.2 Research Issues

Identifying and prioritizing key research issues will be a primary activity in this evaluation. While this analysis has not yet been performed, initial interviews with SDG&E program staff have identified a list of potential key issues, including the following:

- Staff retention and turn over
- Transfer of institutional knowledge
- Clarification of roles and responsibilities
- Organizational differences between utilities
- Efficient use of resources
- Internal program coordination

4.4.3 Data Collection

Planned data collection activities supporting are described in this section and summarized in below.

To address the identified research issues, the evaluation team will collect data as described in this section and summarized in Figure 32, below. Other data collection will be required, and the scope of this will be developed after initial interviews with SDG&E staff.

Data Collection Activity	Respondent Type	Time per Activity	Number Planned
Group interviews	SDG&E staff (n=2)	1 hour	2

Figure 32: Review of Organizational Issues, Data Collection Activity Summary

Data collection analysis for this cross-cutting topic will occur in two main phases. The first will be to identify and refine the team's understanding of the main organizational issues. Following we will work closely with SDG&E to prioritize these issues. Once issues are identified, refined, and prioritized, we will collect and analyze relevant data in order to develop recommendations for improvement.

The main steps towards completing our analysis include the following:

- Interview group(s) of key SDG&E staff. The evaluation team will organize up to two group interviews with key SDG&E staff to identify and prioritize cross-cutting organizational issues. These interviews will either be administered to two different groups, or to the same group at two different times. This will allow for collecting different points of view or to evaluating the persistence of issues over time.
- Inventory and categorize key organizational issues. The evaluation team will analyze the results of staff interviews as well as the results of individual program and cross-cutting evaluations (as they are developed) to identify, define and categorize the key organizational issues for the SDG&E non-residential programs.
- Prioritize critical issues with SDG&E. Once key issues are identified, the evaluation team will work with SDG&E staff to prioritize which should be examined and to what extent. At this stage the evaluation team will also work with SDG&E staff to identify an analysis approach and data collection activities to support each activity.
- Collect and analyze data. Key additional data will then be collected and analyzed to assess the persistence of key organizational issues and to inform recommendations for overcoming them. Examples of potential data collection activities include in-depth interviews with key stakeholders, brief surveys, or process mapping workshops. Where necessary, the evaluation team leads for specific programs will be consulted regarding how specific organizational issues persist in their evaluated programs, and the effect of such issues on these programs.

In addition to the planned group interviews described above, further necessary data collection will be identified and conducted after developing the prioritized list of issues. The evaluation team will work with SDG&E to develop a research plan appropriate to addressing each issue. A significant amount of the evaluation budget is reserved for data collection and analysis to support these to-be-determined data collection activities. Where possible, overarching surveys and interviews performed to support the program evaluations will be leveraged to support this topic.

4.4.4 Budget

The estimated budget to perform planned evaluation work for this cross-cutting topic is $24,150 total ($14,973 to SDG&E, $9,177 to SCG) in Energy Market Innovations (EMI) labor costs and expenses. Figure 33, below, provides additional detail.

	Hours	Cost
EMI Labor Budget:	161	$24,150
Data Collection Expenses:	0	$0
Total:	**161**	**$24,150**

Figure 33: Review of Organizational Issues, Evaluation Budget

4.5 Statewide Coordination

4.5.1 Background

There are numerous obligations for all program managers to comply with various statewide reporting requirements. The process takes extensive staff time and effort, and there are questions among utility staff as to the value of this time and work commitment. For example, one program manager named this as his/her major complaint. Other frequent complaints include priority given to the goals of the other utilities, meetings often based in Northern California, and gas savings often discussed as an afterthought to electric savings.

4.5.2 Research Issues

Key evaluated issues and research objectives may include the following:

- Define where statewide coordination is occurring, how the process is operating, what are the benefits and value, and what is the labor and cost associated with this activity
- Determine linkages between Demand Side Management (DSM) programs and the strategic plan or other policy or legislative initiative
- Methodologies for meeting compliance requirements, whether these methodologies have been optimized and reporting requirements are being met
- Investigate how the new statewide energy efficiency brand, Engage 360, can best be leveraged
- Investigate if the utility EE programs are designed appropriately to achieve the statewide market transformation goals
- Investigate the linkage to the reporting metrics (PPMs) and if they are being tracked
- Identify barriers to greater statewide coordination
- Identify ways to improve the statewide coordination process and make it more valuable to SDG&E and its staff
- Investigate how workforce education and training (WE&T) programs and the utility's demonstration centers feed into core EE program offerings

4.5.3 Data Collection

To address the identified research issues, the evaluation team will collect data as described in this section and summarized in Figure 34, below.

Data Collection Activity	Respondent Type	Time Per Activity	Number Planned
In-Depth Interviews	CPUC staff, Engage 360 staff, SDGE and SCG staff, other utility staff such as SCE and PG&E	60 minutes	15 interviews
Literature Review	NA	NA	NA

Figure 34: Statewide Coordination, Data Collection Activity Summary

Interviews

The in-depth interviews will be semi-structured telephone interviews conducted by experienced consulting staff. Topic guides will be developed and reviewed by Program staff prior to any of the interviews.

Proposed interviewees include California Public Utilities Commission (CPUC) staff and Engage 360, SDGE, SCG, and other utility program managers.

Literature Review

The literature review will include relevant aspects of the current and past strategic plans and utility PIPs, including but not limited to the following:

- History of strategic plan
- Strategic plan intent, implementation strategies and overlap with utility EE plans

Metric Tracking

In order to determine reporting compliance, we will review PPM and strategic goals tracking for all programs for which they are available and that are being evaluated. PPMs will be gathered from the team member evaluating programs described in Section 3 of this document.

4.5.4 Budget

The estimated budget to perform planned evaluation work for this cross-cutting topic is $20,000 total ($12,400 for SDG&E, $7,600 for SoCal Gas) in Navigant labor costs and expenses. Figure 35, below, provides additional detail.

	Hours	Budget
Navigant Labor Budget:	125	$20,000
Expenses:		$0
Total:	**125**	**$20,000**

Figure 35: Statewide Coordination, Evaluation Budget

4.6 Marketing

4.6.1 Background

The effectiveness of SDG&E's marketing efforts will be evaluated through this cross-cutting topic. Although marketing is typically program-targeted, there are company-level researchable issues that can be addressed.

SDG&E is currently implementing a segment-based approach to serving their Commercial and Industrial (C&I) customers. Therefore, there are segment-level goals which assigned segment advisors are responsible for meeting. These segment advisors will also be engaged in marketing strategies to enhance results. They will be responsible for marketing offerings available to segments, but not for marketing efforts of specific programs.

4.6.2 Research Issues

This cross-cutting evaluation will assess a number of issues. Example research questions / issues include the following:

- Are customers aware that SDG&E offers demand side management solutions and financial incentives for implementing those solutions? How are customers most likely to learn of the offerings?
- What is the most effective means for communicating opportunities to SDG&E's C&I customers? Do the effectiveness of these methods or modes vary by sector or by type of program offering?
- Do the utilities understand and effectively utilize the internal and external marketing channels?
- Are internal marketing channels (e.g., account managers) and external marketing channels (e.g., energy champions) being effectively utilized?
- Are there groups of the target population being missed? If so, why and what can be done to meet that gap?
- Is the approach of segmenting AEs based on sector effective in targeting and serving customers? Why or why not? What are the advantages / disadvantages compared with the SCG approach (based on geographic area)?
- Do the utilities have sufficient market-based information to market to their customers? Do the segment advisors have sufficient information to target marketing strategies to specific segments?
- Are there other marketing opportunities not being taken advantage of?

- Are programs effectively cross-marketing? If not, why not?
- Are customers, based on prior experience, creating an informal marketing mechanism by referring other customers into the programs?
- What do the utilities need to consider regarding the timing of the marketing, particularly as it relates to participants' planning cycle? How does that timing vary by different customer segments?

4.6.3 Data Collection

To most cost-effectively deliver on this cross-cutting evaluation issue, the evaluation team will leverage data collection activities being completed through other program-specific or cross-cutting evaluations. These activities include the following:

- Participating customer surveys: Participant surveys will assess means for awareness and preferred way to learn about programs and offerings. Participant surveys will also assess exposure to internal and external marketing channels as well as potential for word-of-mouth program referrals.
- Participating contractor surveys: C&I programs are often marketed through the mid-stream channels, including trade allies and firms providing technical assistance. Participating contractor interviews will assess means of awareness, preferred way to learn about the programs and offerings, and opportunities for marketing improvements.
- Nonparticipant surveys will assess awareness of SDG&E's programs in general, means of awareness, and preferred means for receiving information from the utilities.
- Account manager interviews will identify interactions with customers, how they market to customers, their assessment of marketing materials, and areas needing improvement.
- SDG&E Segment advisor interviews will cover their marketing initiatives, barriers of marketing by segment, and perception of marketing effectiveness and gaps.

In addition to analysis of data resulting from the above activities, the evaluation team will review marketing literature provided by the programs and/or utilities as well as the utilities' websites, to assess the ease of accessing program information.

4.6.4 Budget

The estimated budget to perform planned evaluation work for this cross-cutting topic is $12,850 total ($7,967 for SDG&E, $4,883 for SCG). This assumes no additional primary data collection activity and that analysis can utilize data gathered through complementary evaluation activities planned for specific programs and other cross-cutting topics.

4.7 Third-Party (3P) Implementer Integrations

4.7.1 Background

As part of our 3P program evaluations, we will explore how SDG&E's 3P programs are integrated into the larger portfolio. Specifically, we will investigate the 3P implementers'

ability to help achieve SDG&E's savings goals. In preliminary interviews, program managers expressed the desire for a deeper understanding of their 3P implementer processes, interactions with SDG&E AEs, and marketing activities.

4.7.2 Research Issues

We will address the following cross-cutting 3P research objectives during the course of our targeted 3P program-specific evaluations.

- Describe how 3P staff and AEs coordinate prospect/project development
- Evaluate quality of 3P customer database management and maintenance of data concerning end-user engagement
- Explore marketing and process challenges 3P have in implementing programs
  - Are they following guidelines concerning use of 3P logos and SCG and SDG&E logos
  - Are marketing efforts consistent with other SDG&E program marketing efforts
  - Are 3P Firms using acceptable measurement and verification practices
- Evaluate the quality of customer experience with 3P Implementation firms
  - How do 3P firms deal with customer complaints/inquiry
  - Are contractors' activities acceptable to the end-user
  - Do 3P firms have enough authority to deal with specific issues that arise during project implementation
- Determine the level of local resource 3P implementation firms have allocated to SDG&E programs

4.7.3 Data Collection

Data collection for this cross-cutting topic will be incorporated into relevant program-specific evaluations described in Section 3 of this document. Figure 36, below, summarizes planned data collection activities. Because these interview questions will be incorporated into program-specific interviews, the time for each is short. (In other words, this shows incremental time for the cross cutting questions.)

Activity	Respondent Type	Hours / Activity	Number Planned
Interviews	3P Staff	0.1	5
Interviews	AEs	0.1	8
Interviews	Program managers	0.1	5
Surveys	Program Participants	0.1	67

Figure 36: 3P Implementer Integrations, Data Collection Activity Summary

4.7.4 Budget

Budget for this cross-cutting topic is incorporated into the 3P program-specific evaluation budgets described in Section 3 of this document.

5. APPENDIX. EVALUABILITY ASSESSMENT SUMMARY

The following is a summary of the evaluability assessment table. The full evaluability assessment is delivered as a companion document, as an excel workbook. Note that NR = Nonresource program.

Program Name	**Program Code(s)**	**2010-2012 Program Revised Budget**	**Projected Gross Elec Savings** (kWh/yr)	**Projected Gross Gas Savings** (therms/yr)	**Program Develop-ment Phase**	**Comments and Evaluation Goals for Program**	**Med / High Level Eval?**	**Reason why / why not evaluated at Medium / High level**
Non-Res Bid	SDGE3117	$34,034,091	79,109,674	6,282,756	Mature Implement ation	High projected savings. Mature program, but has changed over time. Changes have upset some in vendor alliance, though the changes will likely improve the accountability of the program. Important to track this and see if other accountability opportunities should be addressed. Evaluation Goals: Document how well the program works with new rules, are rules working for the trade allies and customers, are savings goals achieved.	Yes	High savings predicted

Program Name	Program Code(s)	2010-2012 Program Revised Budget	Projected Gross Elec Savings (kWh/yr)	Projected Gross Gas Savings (therms/yr)	Program Develop-ment Phase	Comments and Evaluation Goals for Program	Med / High Level Eval?	Reason why / why not evaluated at Medium / High level
Direct Install	SDGE3174	$18,001,000	22,296,383	(19,865)	Mid Implement ation	Program has high predicted savings, but savings have not yet been tracked. An evaluation would confirm if program is projected to meet savings goals. Evaluation goals include: Assessing coordination issues between implementation contractors, with other SDGE programs, with Business Improvement Districts (BIDs), and with other California utilities (e.g., SCE); Determining reasons for non participation in the program; Assessing participant satisfaction; Assessing data tracking issues; Determining if program is tracking PPMs.	Yes	The program has high predicted savings, but the savings have not yet been tracked. So this evaluation must confirm the program is on track to meet the savings goals as is expected.
Deemed	SDGE3106	$16,520,919	77,534,267	1,046,730	Mature Implement ation	Improve application processing and turn-around for rebate payment. Get market feedback (participants, potential participants, contractors) on program design and rebate levels, optimize inspection levels. Look at best practices elsewhere (e.g., Point of Sale delivery mechanisms). Assess value and barriers created by benchmarking requirements. Improve ability to track and report on program progress.	Yes	High savings predicted
	SDGE3110	$5,231,082	21,064,281	458,008				
	SDGE3101	$1,065,994	-	993,784				
Calculated	SDGE3109	$11,704,376	9,348,107	3,065,514	Mature Implement	Program depends on links from feeder programs. Medium savings	Yes	High savings predicted
	SDGE3105	$4,248,850	5,794,573	(33,980)				

Program Name	Program Code(s)	2010-2012 Program Revised Budget	Projected Gross Elec Savings (kWh/yr)	Projected Gross Gas Savings (therms/yr)	Program Develop-ment Phase	Comments and Evaluation Goals for Program	Med / High Level Eval?	Reason why / why not evaluated at Medium / High level
	SDGE3100	$3,830,683	1,648,566	761,535	ation	on the portfolio level. Evaluate training of new staff. Streamline program reporting. Identify links and influence of "feeder" programs		
HVAC Tune-up & Quality Installation	SDGE3161	$5,135,117	27,481,055	(5,776)	Mid Implement ation	This is a program that is in mid-stream. It was implemented in the 2006-2008 cycle, but they have made shifts in the program design for this program cycle. Several goals to include in the evalaution include: Assess barriers to meeting energy goals, including funding levels which were reduced mid-planning; Assess marketing and co-branding; Review program logic model; Benchmark with warm weather gas companies to identify other gas measures, including boiler and rooftop tune-ups.	Yes	The participation numbers are sufficient enough to evaluate. Additionally, there have been some modifications to program design that warrant evaluation, even though the program was evaluated in the last program cycle.
Kitchen Learning Center	SDGE3176	$4,483,591	NR	NR	Design/ Pilot	Kitchen Learning Center will be part of SDG&E's Energy Innovation Center, to test equipment and encourage participation in rebate programs. It is not yet complete	No	Center will not be fully operational until August 2011

Program Name	Program Code(s)	2010-2012 Program Revised Budget	Projected Gross Elec Savings (kWh/yr)	Projected Gross Gas Savings (therms/yr)	Program Develop-ment Phase	Comments and Evaluation Goals for Program	Med / High Level Eval?	Reason why / why not evaluated at Medium / High level
On Bill Financing	SDGE3139	$2,624,999	NR	NR	Mature Implement ation	Program had ramp-up between 2006-08, has been running since. The OBF has a low default rate (5 / 715) and fairly robust participant base. The program is marketed through vendors, and vendors help customers complete loan application. There are quality issues with this vendor process. Evaluation Goals: Understand effectiveness of vendor handbook. Comparable outcomes of other OBF programs that are embedded within the programs. Concern over reworking customer applications from poorly trained vendors. Describe small commercial program approval processes.	Yes	Key program with important program linkages across portfolio.
Local Island/Micro Grid	SDGE3137	$2,572,180	916,165	-	Design/ Pilot	Program manager does not want it evaluated. Evaluation goals: document program, provide assessment of feasibility of quick DSM implementation in microgrid area	No	Program staff feel that this is a one-time thing and not something that the process will provide lessons from.
Strategic Planning and Integration	SDGE3140	$2,096,386	NR	NR	Other - Pgm has no implement ation	Department is not part of the program portfolio. Strategic development supports higher level portfolio planning. No process evaluation is suggested for this program.	No	Not a true program.

Program Name	Program Code(s)	2010-2012 Program Revised Budget	Projected Gross Elec Savings (kWh/yr)	Projected Gross Gas Savings (therms/yr)	Program Develop-ment Phase	Comments and Evaluation Goals for Program	Med / High Level Eval?	Reason why / why not evaluated at Medium / High level
SDGE3170 - Retrocomissioning	SDGE3170	$2,043,307	5,642,856	169,286	Mature Implementation	Program is fully subscribed but third party programs present unique process challenges; there is the possibility of expanding program savings goals. Program manager would like to benchmark the program against other programs, both in California and nation-wide.	Yes	Possibility of expanding program.
Continuous Energy Improvement (CEI)	SDGE3108	$1,958,979	NR	NR	Early Implementation	What is this program's potential in SDG&E service territory? Will large C/I/Ag customers participate partially or fully in CEI program? If not, why? If yes, how much staff and monetary resources can they allocate to EE planning, retrofits, and monitoring? Will they actually implement projects, in what timeframe? How does this program overlap with related statewide efforts and how do those related efforts (that are championed by CPUC) compete with customers limiting participation for CEI?	No	Early implementation, no progress yet.
	SDGE3112	$584,304	NR	NR				
	SDGE3104	$136,176	NR	NR				

Program Name	Program Code(s)	2010-2012 Program Revised Budget	Projected Gross Elec Savings (kWh/yr)	Projected Gross Gas Savings (therms/yr)	Program Develop-ment Phase	Comments and Evaluation Goals for Program	Med / High Level Eval?	Reason why / why not evaluated at Medium / High level
Lodging & Heathcare Energy Efficiency Programs	SDGE3166	$1,616,409	3,214,487	(8,123)	Mature Implement ation	Identify program processes. Identify links to other SDGE resource programs to improve effectiveness of this feeder program. IT issues - LEEP does not track the results of the comprehensive audits in any database (though reports are available to SDG&E).	No	Now a nonresource program. Key issues are overarching for audit type programs (coordination with resource-based programs and tracking results). Also, HMG team will evaluate SaveGas program, which targets lodging program.
	SDGE3165	$1,616,407	6,729,288	(45,555)				Now a nonresource program. Key issues are overarching for audit type programs (coordination with resource-based programs and tracking results).
Nonres audits	SDGE3107	$1,562,143	NR	NR	Other - not operating	This program isn't being carried out. Audits are being conducted through other programs (e.g., LEEP, HEEP, BEA, RCx, ICEAT). Recommend assessing audits as a cross-cutting issue, leveraging other initiatives to identify the role of audits in the programs and opportunities to improve the process in general.	Yes	Could serve as key feeder program, but not operating. Evaluation will also research broader audit issues (e.g., integration with resource based programs)
	SDGE3111	$440,165	NR	NR				
	SDGE3102	$142,169	NR	NR				

Program Name	Program Code(s)	2010-2012 Program Revised Budget	Projected Gross Elec Savings (kWh/yr)	Projected Gross Gas Savings (therms/yr)	Program Develop-ment Phase	Comments and Evaluation Goals for Program	Med / High Level Eval?	Reason why / why not evaluated at Medium / High level
Portfolio of the Future	SDGE3168	$674,016	NR	NR	Completed	This is an internal program to recommend new technologies for including in other programs. 3P (Navigant) assesses new technologies. Program manager is interested in developing custom technologies in the marketplace into portfolio wide measures. Only 2% of recommended technologies are adopted. Evaluation Goals: Understand why recommended technologies are not included in the portfolio. Is there an opportunity for customer recommended EE technologies?	No	Nonresource program, not key to portfolio.
Business Energy Assessment	SDGE3163	$568,307	NR	NR	Mature Implement ation	Evaluate marketing (currently unknown) and participant follow-up. Identify links between BEA and other programs. SDGE staff seem unsure about how the program is currently being run; key link to "feeding" customers to Deemed and Calculated programs.	No	Program is currently studied by CPUC and will be replaced by third-party audit tool in coming year.

Program Name	Program Code(s)	2010-2012 Program Revised Budget	Projected Gross Elec Savings (kWh/yr)	Projected Gross Gas Savings (therms/yr)	Program Develop-ment Phase	Comments and Evaluation Goals for Program	Med / High Level Eval?	Reason why / why not evaluated at Medium / High level
HVAC Statewide	SDGE3146 SDGE3147 SDGE3148 SDGE3149 SDGE3150 SDGE3151	$911,705 (total for all 6 programs)	NR	NR	Design/ Pilot	This is a nonresource program for the utility. Their involvement is limited beyond participation in statewide meetings. The only concrete evaluation goal identified is to identify what gas savings are available and relevant for SDGE's market.	No	The HVAC program is part of a core offering if six sub-programs led by SCE. This is a nonresource program. There is little direct activity for SDGE There are no participants, and budget is primarily used to support staff resources. Evaluation resources should be directed to programs that have more impact on the overall portfolio of offerings.
SaveGas Program	SDGE3162	$471,821	0	491,790	Mature Implement ation	Program manager seems unclear as to how the program is operating. Assess lack of participation and savings.	Yes	Savings lower than expected. Site data also found to be inaccurate, so can't claim savings.
Energy Efficient Water Pumping	SDGE3164	$303,247	NR	NR	Early Implement ation	This is a new program and some basic processes could be worked out and put into place to ensure success. Develop a better system for data tracking, specifically conversion rates Develop QA procedures for IC - submit test report summaries	No	Early implementation, no progress yet.

Program Name	**Program Code(s)**	**2010-2012 Program Revised Budget**	**Projected Gross Elec Savings** (kWh/yr)	**Projected Gross Gas Savings** (therms/yr)	**Program Develop-ment Phase**	**Comments and Evaluation Goals for Program**	**Med / High Level Eval?**	**Reason why / why not evaluated at Medium / High level**
Comprehen-sive Industrial Energy Efficiency	SDGE3169	$1,584,845	241,769	300,000	Early Implement ation	This program has problems and would benefit from a re-design. 3P contractor incentive structure should be reconsidered.	Yes	High potential for improvement through evaluation.

6. Appendix. Current Status of Portfolio

A summary of performance for all IOUs based on the most recent filings to EEGA is presented below. This information is based on savings through May for SDG&E, June for SoCal Gas, June for PG&E, and April for SCE. Because the total projected savings are for program cycle 2010-12, this status shows progress at roughly the halfway mark.

6.1.1 Overall Portfolio Status

The next three figures show the installed and committed savings, relative to projected, for SDG&E, as well as for the other IOUs (for comparison). As shown, based on these ex-ante savings claims, SDG&E is on-track to meet kWh and kW savings goals, but has a shortfall of therm savings.

As shown in Figure 37, SDG&E has installed 95% of its kWh savings and has another 30% committed.

IOU	Portfolio Projected kWh Savings	Installed kWh Savings	Total Committed kWh Savings	Installed kWh Savings Relative to Projected (%)	Committed kWh Savings Relative to Projected (%)
SDGE	794,440,714	755,230,856	234,898,420	95%	30%
SCG	NA	NA	NA	NA	NA
PGE	4,372,582,691	2,883,148,439	436,205,120	66%	10%
SCE	4,952,314,983	3,256,025,748	594,174,058	66%	12%

Figure 37 – Current kWh Performance Relative to Projected, for all IOUs

As shown in Figure 38, SDGE has installed 87% of its demand savings (peak kW). The filing also shows that the committed peak demand savings is 3965%, although HMG believes there may be an error in the filing for SW-ResG - Business/Consumer Electronics/Plug Load. (This program was filed with committed demand reduction of 6.2 million kW.) Without this program, committed demand savings are 37,656 peak kW, or 24% of projected demand savings.

IOU	Portfolio Projected Peak kW Savings	Installed kW Savings	Total Committed kW Savings	Installed kW Savings Relative to Projected (%)	Committed kW Savings Relative to Projected (%)
SDGE	157,270	136,266	6,236,542	87%	3965%
SCG	NA	NA	NA	NA	NA
PGE	840,660	508,838	82,427	61%	10%
SCE	984,290	626,948	100,953	64%	10%

Figure 38 – Current Demand (Peak kW) Performance Relative to Projected, for all IOUs

As shown in Figure 39, SDG&E has installed 5% of its therm savings and has another 13% committed.

IOU	Portfolio Projected Therm Svings	Installed Therm Savings	Total Committed Therm Savings	Installed Therm Savings Relative to Projected (%)	Committed Therm Savings Relative to Projected (%)
SDGE	11,658,919	535,516	1,497,682	5%	13%
SCG	115,207,058	38,210,492	12,497,841	33%	11%
PGE	65,379,405	38,957,353	137,599,526	60%	210%
SCE	NA	NA	NA	NA	NA

Figure 39 – Current Gas Savings Performance Relative to Projected, for all IOUs

6.1.2 Status of Nonresidential Programs with Therm Goals

Because SDG&E is on track to meet electricity goals (both kWh and kW), but not therm goals, and because our process evaluation is for nonresidential programs only, the HMG team analyzed nonresidential programs that deliver therm savings.

Figure 40 lists SDG&E nonresidential programs with therm savings (from highest to lowest projected savings). Other types of programs (e.g., Residential, Local Government Partnerships – LGPs) are not shown. Nonresidential Nonresource programs are also not shown. The second to last row (in bold) shows the cumulative performance of all nonresidential programs listed in the table. For example, this row shows that the nonresidential programs claim 10% of their cumulative projected therm savings as installed, and 23% as committed. This row also shows that nonresidential programs are projected to deliver > 100% of the total portfolio's therm savings (All Nonresidential, Residential, and LGP projected savings combined). (A portion of these savings will be lost through the interactive effects, particularly for residential lighting and appliance programs.)

Program ID	Program Name	Program Projected Therm Savings	Installed Therm Savings	Therm Savings Committed	Installed Therm savings Relative to projected (%)	Committed Therm savings Relative to projected (%)	Projected Therm savings contribution to Portfolio (%)	Medium/ High Level Eval?
SDGE3117	Local03 - Local Non-Residential (BID)	6,282,756	618,351	2,629,958	10%	42%	54%	Y
SDGE3109	SW-IndA - Calculated	3,065,514	8,820	95,875	0%	3%	26%	Y
SDGE3106	SW-ComB - Deemed	1,046,730	29,463	(2,339)	3%	0%	9%	Y
SDGE3101	SW-AgB - Deemed	993,784	321,820	32,865	32%	3%	9%	Y
SDGE3100	SW-AgA - Calculated	761,535	-	-	0%	0%	7%	Y
SDGE3162	3P-NRes02 - SaveGas – Hot Water Control	491,790	89,285	-	18%	0%	4%	Y
SDGE3110	SW-IndB - Deemed	458,008	7,048	8,659	2%	2%	4%	Y
SDGE3169	3P-NRes12 - Comprehensive Industrial Energy Effic	300,000	-	-	0%	0%	3%	Y
SDGE3170	3P-NRes13 - Retro Commissioning (RCx)	169,286	20,276	-				Y
SDGE3167	3P-NRes09 - Mobile Energy Clinic (MEC)	(65)	(66)	-	101%	0%	0%	NA[1]
SDGE3161	3P-NRes01 - Non-Res HVAC Tune-up/Qual Instal	(5,776)	(2,570)	-	44%	0%	0%	Y
SDGE3166	3P-NRes08 - Lodging Energy Efficiency Program	(8,123)	-	-	0%	0%	0%	No[2]
SDGE3174	SW-ComE - Direct Install	(19,865)	-	-	0%	0%	0%	Y
SDGE3105	SW-ComA - Calculated	(33,980)	280,668	322,030	-826%	-948%	0%	Y
SDGE3165	3P-NRes07 - Healthcare Energy Efficiency Program	(45,555)	-	-	0%	0%	0%	No[2]
	Total Energy Efficiency for Nonres programs (those listed above), relative to ALL Programs	**13,456,039**	**1,373,095**	**3,087,048**	**10%**	**23%**	**115%**	
	Total Energy Efficiency Portfolio for ALL Programs (Nonres, Residential, LGP)	11,658,919	535,516	1,497,682	5%	13%		

[1] This program has been discontinued, according to the program manager.

[2] This program has been changed to nonresource based.

Figure 40 - SDG&E Nonresidential programs with therm goals: Therm status and contribution to overall savings

Figure 40 shows that the gas shortfall is because programs with therm goals are not achieving their projected therm savings. Two of the SDG&E programs that are projected to deliver almost half of the portfolio's therm savings – NonRes BID and Calculated Industrial, have both delivered < 10% of projected therm savings. Nonres BID does have total commitments for an additional 42% of therm savings, but commitments for Calculated Industrial are only 3% of projected.

Most of the therm savings that have been achieved have been lost to interactive effects: In a side calculation, the HMG found that across all programs in the portfolio (Nonresidential, Residential, LGP), the *positive* therm savings achieved are 3.6 million therms, and the negative savings are 3 million therms. However, therm losses from interactive effects are still within the predicted range. In other words, programs with therm penalties are not overperforming – these programs are generally on target. The savings shortfall is because programs with therm savings are underperforming, so almost all therms savings are lost.

Comparison with PG&E and SoCal Gas

The natural gas savings status for PG&E and SoCal Gas for nonresidential programs was also analyzed for comparison. This was done to identify possible programs for a best practice comparison, although there may be differences (such as unique market segments) that make some lessons nontransferable.

PG&E nonresidential programs with therm savings that have an analogous program at SDG&E are shown below. As Figure 41 shows, these nonresidential programs are projected to provide 67% of total therm savings for PG&E, with 54% of this delivered by the Calculated Industrial and Calculated Agricultural programs. Both programs are on track for installed and committed savings, with Calculated Industrial overcommitted.

Program ID	Program Name	Program Projected Therm Savings	Installed Therm Savings	Therm Savings Committed	Installed Therm savings Relative to projected (%)	Committed Therm savings Relative to projected (%)	Projected Therm savings contribution to Portfolio (%)
PGE21021	Industrial Calculated Incentives	25,640,532	20,948,907	29,339,518	82%	24%	39%
PGE21031	Agricultural Calculated Incentives	9,615,396	3,751,574	3,015,297	39%	0%	15%
PGE21022	Industrial Deemed Incentives	3,995,284	1,204,133	(3,497)	30%	0%	6%
PGE21014	Nonresidential Commercial Audits Program [9]	2,010,636	375,289	-	19%	1%	3%
PGE2228	Industrial Recommissioning Program	1,530,691	56,470	-	4%	0%	2%
PGE2206	Healthcare Energy Efficiency Program	472,687	39,241	-	8%	0%	1%
PGE21011	Commercial Calculated Incentives	387,132	1,368,117	4,720,923	353%	51%	1%
PGE21024	Nonresidential Industrial Audits Program [9]	384,480	32,395	-	8%	0%	1%
PGE21032	Agricultural Deemed Incentives	363,635	1,238,407	14,580	341%	3%	1%
PGE2190	LodgingSavers	272,185	(24,038)	(2,122)	-9%	0%	0%
PGE21062	HVAC Technologies and System Diagnostics Advocacy	254,851	-	-	0%	0%	0%
PGE21061	Upstream HVAC Equipment Incentive	(269,537)	(63,401)	-	24%	1%	0%
PGE21012	Commercial Deemed Incentives [7]	(1,224,777)	(269,270)	92,138	22%	6%	-2%
	Total Energy Efficiency for Nonres programs (those listed above), relative to Total Portfolio	**43,433,195**	**28,657,824**	**37,176,837**			67%
	Total Energy Efficiency Portfolio for Total Portfolio (Nonres, Residential, LGP)	65,379,405	38,957,353	137,599,526			

Figure 41 – PG&E Nonresidential programs analogous to SDGE's with therm goals: Status and contribution to overall savings

SoCal Gas nonresidential programs with therm savings are shown in Figure 42. Programs that have an analogous program at SDG&E have a gray background. As the figure shows, nonresidential programs are projected to deliver 62% of total portfolio savings, with over half of this delivered through Calculated Industrial and Deemed Commercial. The cumulative installed savings from all nonresidential programs is 32% of their cumulative projected savings; cumulative installed savings are 17% of projected.

Program ID	Program Name	Program Projected Therm Savings	Installed Therm Savings	Therm Savings Committed	Installed Therm savings Relative to projected (%)	Committed Therm savings Relative to projected (%)	Projected Therm savings contribution to Portfolio (%)
SCG3611	SW-IndA - Calculated	34,491,066	13,191,824	1,944,053	38%	4%	30%
SCG3608	SW-ComB - Deemed	12,346,061	2,020,629	50,873	16%	0%	11%
SCG3612	SW-IndB - Deemed	7,207,206	5,310,665	174,312	74%	2%	6%
SCG3607	SW-ComA - Calculated	5,460,498	1,491,551	4,230,638	27%	4%	5%
SCG3603	SW-AgB - Deemed	4,050,263	407,763	-	10%	0%	4%
SCG3602	SW-AgA - Calculated	3,456,828	239,986	2,676,197	7%	0%	3%
SCG3601	Local05 - Local Non-Residential BID	1,309,959	-	3,180,347	0%	0%	1%
SCG3662	3P-NRes3 - Small Industrial Facility Upgrades	1,143,315	-	-	0%	0%	1%
SCG3673	3P-Xc02 - SaveGas – Hot Water Control	933,345	80,095	-		0%	1%
SCG3663	3P-NRes4 - Pgm for Resource Effic in Private Schools	905,403	-	-	0%	0%	1%
SCG3672	3P-Xc01 - Gas Cooling Retrofit	52,613	58,361	-	111%	0%	0%
	Total Energy Efficiency for Nonres programs (those listed above), relative to ALL Programs	71,356,557	22,800,874	12,256,420	32%	17%	62%
	Total Energy Efficiency Portfolio for ALL Programs (Nonres, Residential, LGP)	115,207,058	38,210,492	12,497,841	33%	11%	

Figure 42 – SoCal Gas Nonresidential programs: Status and contribution to overall savings

Considerations for Evaluation

The HMG team will evaluate all 9 nonresidential programs with positive projected therm savings. In the process, the team will consider how therm savings could be increased, and if marketing strategies should be changed to focus on customers with high therm use. The team will also consider if there are best practices that could be adopted from other utilities' programs, or if the customer base is too unique for SDG&E. In addition, the team will consider if there are customers in other utility territories that are enrolled in therm savings programs, with facilities in SDG&E territory.