

RTR Appendix

Southern California Gas Company (SoCalGas) developed Responses to Recommendations (RTR) contained in the evaluation studies of the 2013-2015 Energy Efficiency Program Cycle and beyond. This Appendix contains the Responses to Recommendations in the report:

RTR for the PY2022 SW Midstream Commercial Water Heating Program Impact Evaluation (Opinion Dynamics, Calmac ID #CPU0380.01)

The RTR reports demonstrate SoCalGas' plans and activities to incorporate EM&V evaluation recommendations into programs to improve performance and operations, where applicable. SoCalGas' approach is consistent with the CPUC Decision (D.) 07-09-043¹ and the Energy Division-Investor Owned Utility Energy Efficiency Evaluation, Measurement and Verification (EM&V) Plan² for 2013 and beyond.

Individual RTR reports consist of a spreadsheet for each evaluation study. Recommendations were copied verbatim from each evaluation's "Recommendations" section.³ In cases where reports do not contain a section for recommendations, the SoCalGas attempted to identify recommendations contained within the evaluation. Responses to the recommendations were made on a statewide basis when possible, and when that was not appropriate (e.g., due to utility-specific recommendations), SoCalGas responded individually and clearly indicated the authorship of the response.

The Joint IOUs are proud of this opportunity to publicly demonstrate how programs are taking advantage of evaluation recommendations, while providing transparency to stakeholders on the "positive feedback loop" between program design, implementation, and evaluation. This feedback loop can also provide guidance to the evaluation community on the types and structure of recommendations that are most relevant and helpful to program managers. The Joint IOUs believe this feedback will help improve both programs and future evaluation reports.

¹ Attachment 7, page 4, "Within 60 days of public release, program administrators will respond in writing to the final report findings and recommendations indicating what action, if any, will be taken as a result of study findings as they relate to potential changes to the programs. Energy Division can choose to extend the 60 day limit if the administrator presents a compelling case that more time is needed and the delay will not cause any problems in the implementation schedule, and may shorten the time on a case-by-case basis if necessary to avoid delays in the schedule."

² Page 336, "Within 60 days of public release of a final report, the program administrators will respond in writing to the final report findings and recommendations indicating what action, if any, will be taken as a result of study findings. The IOU responses will be posted on the public document website." The Plan is available at <http://www.energydataweb.com/cpuc>.

³ Recommendations may have also been made to the CPUC, the CEC, and evaluators. Responses to these recommendations will be made by Energy Division at a later time and posted separately.

Response to Recommendations (RTR) in Impact, Process, and Market Assessment Studies

Study Title: Statewide Midstream Commercial Water Heating Impact Evaluation PY 2022
Program:
Author: Opinion Dynamics
CALMAC ID: CPU0380.01
ED WO:
Link to Report: [Statewide Midstream Commercial Water Heating Impact Evaluation, Program Year 2022](#)

MANAGEMENT APPROVAL AFTER REVIEW		
	Name	Date
SCG Programs	Darren Hanway	2/6/2025
SCG RP&R	Roy Christian	2/18/2025

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							Next Steps:	Timeline:	Status:	Notes:	Impacted Programs:
				If incorrect, please indicate and redirect in notes	Choose: Accepted, Rejected, or Other	Examples: Describe specific program change, give reason for rejection, or indicate that it's under further review.	For each accepted recommendation, outline the steps required for implementation, responsible parties, and deadlines. For each rejected recommendation, document the reason provided for rejection. Outline any potential follow-up actions or considerations for the future.	Set deadlines for the completion of each action. Include a start date and end date when possible.	Track the status of each action item (e.g., Not Started, In Progress, Completed).	Add notes for any additional information or updates.	Identify which programs (program IDs) would be impacted by the action items.
1	67	Final savings in the program implementer's tracking data did not align with the eTRM measure package versions effective for PY2022 for large tankless water heaters (TWH) and commercial domestic hot water (DHW) boilers. The program tracking data only indicates the basic measure and offering ID (e.g., SWWH005E, SWWH006C)	<ul style="list-style-type: none"> Implement QA/QC procedures to ensure final implementer savings use eTRM measure package versions effective for the program year. In the program tracking data, clearly indicate the version of the eTRM measure package used to develop savings. If possible, also include the actual eTRM permutation file used 	Implementer	Accepted	SoCalGas accepts the recommendation. The program has been updated to include all measure offerings and will be updated yearly during program setup. When evaluating the program, implementer system savings are not the data source of record and should not be used. The SoCalGas data system is used to calculate and report savings. The measure package version is listed in the source description of claim data as well as the measure Detail ID of the claim.	The program has been configured to align with eTRM measure packages. This reconfiguration is done yearly to ensure the correct measure packages are claimed through the program.	1/1/2024	Completed		SW_MCWH
2	67	Almost a third of the PY2022 therm savings come from claims using a "Com" building type, and most "Com" projects in the desk review sample were multifamily sites. For water heating equipment installed in multifamily buildings, the Program used commercial eTRM measures and the "Com" (commercial sector average) building type instead of a multifamily building type. Another minor issue that was documented in the desk review process was the mischaracterization of building types, such as a nursing home that was mischaracterized as a restaurant (8 of 75	<ul style="list-style-type: none"> If residential multifamily applications continue to be valid for this program, use multifamily specific eTRM measure packages and permutations to develop reported savings instead of the commercial measure packages, which do not include a multifamily building type. Quality assurance processes should be reviewed or established to validate the building type assigned to end-users. 	Implementer	Accepted	SoCalGas accepts the recommendation, and the program has been updated to include multifamily common area measure packages There are backend verifications that happen on all installations. At the distributor submission phase, notifications are presented for incentive selection accuracy. Then, program administrators research all end user addresses to validate the building type.	Program year 2025 setup now includes multifamily central water heating measure packages.	1/1/2025	Completed		SW_MCWH

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		claims).									
3	67	The SWWH Program used the eTRM TWH measure package, which assumes a SWH baseline. However, this assumption does not make sense for newly constructed buildings and is also not applicable if the incentivized TWH is replacing an existing, failed TWH or boiler. Six completed end-user surveys to investigate this issue found that only half of the projects replaced an SWH	<ul style="list-style-type: none"> ♣ Conduct a more robust baseline study to determine the mixture of SWHs and TWHs replaced by incentivized TWHs in existing buildings. ♣ For TWHs installed in new construction buildings or replacing existing TWHs, apply the small/medium <200 kBtuh (commercial boiler measure package (SWWH005), which uses code-minimum efficiency equipment as the baseline. ♣ Do not use the commercial TWH measure package (SWWH006) for midstream programs since the SWH baseline cannot be validated. The program implementation team should use a code-minimum TWH as the baseline 	Implementer	Accepted	<p>SoCalGas has seen market share statistics between storage and tankless water heaters which suggest that storage water heaters are still the majority of sales in the commercial market.</p> <p>This market share data is supported by the recent California Water Heating Market Study conducted in 2024 by Opinion Dynamics which although has a small self-reported data set, shows the majority (60%) of residential water heaters being replaced are gas storage water heaters. The study shows 50% of new water heaters being installed are gas storage while only 14% are gas tankless water heaters. Of the gas tankless water heaters installed, approximately 50% of installations are replacing a storage water heater.</p> <p>Additionally for new construction buildings, Title 24 still allows for storage water heaters which are minimally compliant with Title 20 code to be installed.</p> <p>Despite this, SoCalGas is planning to conduct a market study on commercial water heating to determine the appropriate baseline moving forward.</p>	SoCalGas will be conducting a water heater market study. This study will aim to inform the next round of measure package updates.	TBD	Not Started	Impacts all IOU programs which offer commercial tankless water heaters, not only the SCG mid-stream program.	
4	67	The evaluation team was unable to match up the records in the implementer's program tracking data with the records in the CEDARS database. The evaluation team was unable to recreate the savings in the CEDARS database, in part, because of its complex nature. The database records four entries (one for each IOU) for each record in the implementer data. Further, the PA did not rely on implementer final savings for CEDARS claims, but calculated final savings claims based on a subset of implementer tracking data.	<ul style="list-style-type: none"> ♣ Provide a clear and transparent process to trace CEDARS data to the original savings record in the implementer's program tracking data at a record level. ♣ The PA should fully document the process of translating final implementer data into reported CEDARS claims. 	Implementer/PA	Other	<p>SoCalGas does not have control over CEDARS as it is owned and updated by the CPUC and its consultants.</p> <p>The four separate claims by IOU are split on the back end in CEDARS based on budget and savings shares and can be reattributed based on the claim ID.</p> <p>Claims can be tracked throughout the various internal reporting systems using the claim ID.</p>	N/A	TBD	Not Started	Impacts all statewide utility led programs, not just SoCalGas.	
5	67	A valid end-user address for the equipment installation was provided for almost all desk review sites and is fully populated in the program tracking data. End-user contact information (e.g., email	<ul style="list-style-type: none"> ♣ Business name and address are often sufficient to verify the business type and location of an end-user for an impact evalua- 	Implementer	Accepted	SoCalGas accepts this recommendation and agrees that complete end user and contractor information is the goal. The program outreach team is continuously training distributors to collect complete and accurate information. Additionally,	This is an ongoing effort to keep distributor staff trained on data collection processes.	TBD	In Progress		SW_MCWH

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		and phone) was primarily populated with duplicated contractor information. Only about a third of the claims contained end-user contact information.	tion. However, verifying the replaced equipment, building information, and/or primary or secondary configurations often requires the input of the end-user or installing contractor. Therefore, the implementation team should improve the collection of end-user phone and email contact information to facilitate end-user research and evaluation			installing contractors are reminded that quality assurance checks are frequent, and that valid end user information is needed. Programs staff also review each transaction for accuracy. However, there are instances when end user information is unavailable, particularly in cases of new construction projects or large-scale builds managed by general contractors.					
6	68	The implementer provided invoices for all sampled projects and included specific data requirements on invoices in addition to the typical items (i.e., equipment make, model, quantity, etc.) that greatly facilitated evaluability, including end-user address, serial numbers, program name, and incentive amount.	No Recommendation	Implementer	n/a	n/a					
7	68	The implementer maintained a QPL from certified sources to validate equipment program eligibility, track key equipment performance characteristics (i.e., product type, heating capacity, and efficiency) and used these values to map to the correct eTRM Measure Package. The QPL accuracy was also verified for the desk review sample. The QPL with eTRM measure package mapping was integral to the savings development process	♣ Consider making the QPL, including the eTRM measure package matching, an integral part of the program tracking data for future evaluations.	Implementer	Accepted	SoCalGas accepts this recommendation and has already implemented it. Each piece of equipment on the QPL has an associated measure offering ID that maps directly to the eTRM measure package	N/A	2023	Completed		SW_MCWH
8	68	One-on-one support provided by the Program's implementation team was highly valued by distributors and instrumental in their successful participation.	No Recommendation	Implementer	n/a	n/a					
9	68	While contractors generally found eligibility requirements clear, distributors faced challenges with contractor end-user data collection, with some contractors initially hesitant to provide information.	♣ Enhance communication and streamline processes between distributors and contractors to improve end-user data collection. Provide comprehensive training and resources to distributors to assist in training contractors to ensure they understand the importance of data completeness for program incentives. Provide contractors with standardized checklists and	Implementer	Accepted	SoCalGas accepts this recommendation. Since 2021 DNV has had an Outreach Team and Program Administrators to support and help distributors through the learning process. However, turnover within distributors is common requiring constant retraining. Current and updated checklists are being used in the market for education. Additionally, important updates are brought to distributor attention using various methods	This is an ongoing effort to keep distributor staff trained on data collection processes.	2021	In Progress		SW_MCWH

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			regular communication of Program protocols to facilitate efficient and accurate data collection processes.			including email, calls, in-person visits, and email groups.					
10	68	The majority of contractors did not shop at big box stores or utilize the Program's online coupon tool, with only 13% aware of the tool and none using it to purchase program-eligible equipment.	♣ To increase the effectiveness and adoption of the online coupon tool, the Program implementer should enhance awareness and promotion of the tool among contractors. This could include targeted communication campaigns, training sessions on how to use the tool, and demonstrating the benefits and ease of purchasing equipment from big box stores using the coupons.	Implementer	Accepted	<p>SoCalGas accepts the recommendation, however, has previously encountered hurdles with the implementation of the coupon tool. The coupon tool was built, tested, and ready to launch in May 2022, but there were issues with the integration of the tool and the retailer's point of sale systems. Due to the unresolved issues, DNV was not able to move forward with a launch of the coupon system in the statewide program.</p> <p>Commercial contractors typically shop through plumbing distributor channels, and not big box retailers. In addition, DNV conducts impromptu surveys and communications with participants and finds that distributors within the program do not see big box retailers as competitors to their business.</p> <p>While there may be capacity to increase activity in the commercial channel through retailers, the program's current scale of delivery does not make this a priority for expanding the program's reach, since the program has scaled and ramped its impact. DNV also has concerns over dilution and risk of cross-sector (residential application to commercial application) sales which may be harder to track and secure if there is increased focus on retail channels. Working through this issue will again require significant support from the retailer (who are currently backfilling their rebate manager position) and from the EM&V consultant.</p>	DNV is open to pursuing the coupon portal again if a big box retailer can prioritize the program and provide resources for completion.	TBD	In Progress		SW_MCWH

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11	68	The Program is successfully working with participating distributors to incentivize efficient water heating equipment, but most participating businesses and contractors are concentrated in Southern California. The PIP highlights the implementer's strategy of prioritizing distributors from SoCalGas' legacy program to establish credibility, aiming to leverage this trust to attract additional distributors. Yet, given that the program launched in May of 2021 we would expect participation to be more dispersed across the state by 2022.	♣ The Program implementer should target outreach efforts and support to distributors and contractors in other parts of the state beyond southern California. This could include tailored marketing campaigns, incentives, and training programs to increase awareness and participation statewide	Implementer	Accepted	SoCalGas accepts and has already implemented this recommendation. Since 2021, the Outreach Manager was located the Bay Area focusing on launching the program. The LA area had the fastest adoption due to previous programs and the presence of the Lead IOU. Outreach team members were added in Sacramento in June of 2022 and in Fresno in the of Fall 2023. The outreach team logged a total of 59,000 miles to service all eligible areas. By the end of 2023 the Nor-Cal market accounted for 30% of energy savings from distributor participation including Ferguson Enterprises, Pace Supply, Cal-Steamp, Keller Supply, Slakey Brothers, Rubenstein, WHCI, and others.	Savings claims since the program evaluation have expanded into Northern California and are more representative of the population in the state.	2023	Completed		SW_MCWH
12	69	Based on our desk reviews, the program likely incentivized some in-unit water heating measures, which would only be valid if the multifamily building in which they were installed is master metered. Further, the process of verifying the eligibility of multifamily installations was described as ad hoc in program staff interviews.	♣ The Program administrator and implementer should formalize a process of verifying the eligibility of multifamily installations to ensure equipment is only installed on nonresidential/commercial rate meters.	Implementer/PA	Other	The participation agreement clearly states that only central heating plants are eligible for multi-family applications. Multi-family criteria are also written on marketing fliers and program checklists. The outreach team consistently educates distributors on what's eligible and ineligible. The outreach team is knowledgeable of other incentive programs to redirect customers when a specific ineligible project through midstream could be eligible in another. While some distributors send in gas bills ad-ho which provide the installation address and rate code, for final confirmation on multifamily Installations before approval, there are backend verifications that happen on all installations. At the distributor submission phase, notifications are presented for incentive selection accuracy. Then, program administrators research all end user addresses to validate commercial building type.	Existing processes are in place to verify multifamily installations meet the program criteria.	2024	Completed		SW_MCWH
13	69	Distributors are largely satisfied with the comprehensiveness of the QPL, with no significant omissions reported. Over half of the distributors worked with the implementation team to add new	No Recommendation	Implementer	n/a	n/a					

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		products, finding the process relatively seamless.									