

RTR Appendix

Southern California Edison, Pacific Gas and Electric, Southern California Gas, and San Diego Gas and Electric (“Joint Utilities” or “Joint IOUs”) 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 Impact Evaluation of Residential HVAC Measures: Residential Sector—
Program Year 2020 (EM&V Group A)*** (DNV, Calmac ID #CPU0341.01,
ED WO #GroupA_Res_HVAC_YR4)

The RTR reports demonstrate the Joint Utilities’ plans and activities to incorporate EM&V evaluation recommendations into programs to improve performance and operations, where applicable. The Joint IOUs’ 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 Joint IOUs 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), the Joint IOUs 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: Impact Evaluation of Residential HVAC Measures: Residential Sector—Program Year 2020 (EM&V Group A)
Program: HVAC
Author: DNV
Calmac ID: CPU0341.01
ED WO: GroupA_Res_HVAC_YR4
Link to Report: https://www.calmac.org/publications/Group_A_Residential_PY2020_RES_HVAC_Final_Report_CALMAC.pdf

Item #	Sec. #	Findings	Best Practice / Recommendations (Verbatim from Final Report)	Recommendation Recipient	PG&E (if applicable)		SCE (if applicable)		SCG (if applicable)		SDG&E (if applicable)	
					Disposition	Disposition Notes	Disposition	Disposition Notes	Disposition	Disposition Notes	Disposition	Disposition Notes
				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.	Choose: Accepted, Rejected, or Other	Examples: Describe specific program change, give reason for rejection, or indicate that it's under further review.	Choose: Accepted, Rejected, or Other	Examples: Describe specific program change, give reason for rejection, or indicate that it's under further review.	Choose: Accepted, Rejected, or Other	Examples: Describe specific program change, give reason for rejection, or indicate that it's under further review.
1	6.3	Realization rates for rebated smart thermostats improved in PY2020 because ex-ante savings have been reduced based on prior evaluation results. Direct install smart thermostats, fan motor replacements, and fan motor controls continue to have low gross realization rates. Duct testing and sealing continue to have high realization rates.	Continue to adjust ex-ante savings for other measures similarly, particularly for those with fairly stable savings patterns from past evaluations.	CPUC, All PAs	Accepted	This recommendation should be considered in the statewide Residential HVAC program led by SDG&E. PG&E recognizes that adjusting savings seems to have become a trend among these measures. PG&E would support a detailed review of the causes of, and the reasons behind, the adjustments, hopefully minimizing or eliminating further reductions on savings. This may include reviewing the measure package savings or program execution.	Accepted	Realization rates for rebated smart thermostats improved in PY2020; however, this is not necessarily reflective of measure savings estimates methods being improved. As related in Impact Evaluation comments, significant variations and inconsistency on PY2020 GRR between DI and Rebate for smart thermostat compared to other program years suggest that measure savings estimation methods (particularly for DI) including engineering estimates and assumptions (including Covid-19 pandemic effects) need additional research. Variations of GRR between DI (6%) and Rebate (71%) is a good example of the variability and uncertainty of the Impact Evaluation data.	Accepted	SoCalGas will continue to review savings on HVAC-related measures, for deemed and direct install applications, where applicable, and adjust as appropriate.	Accepted	SDG&E is the responsible PA lead for duct seal (SWSV001) and duct optimization (SWSV013) for DEER2024 measure package updates and will continue to collaborate closely with commission staff and DNV consultants for updating ex-ante savings.
2	6.5	Savings shapes indicate that measures like fan motors and duct sealing reduce consumption proportionally to the end use consumption and deliver savings consistently across all seasons.	PAs should continue to include these measures in the residential HVAC program portfolio.	CPUC, All PAs	Accepted	This recommendation should be considered in the Statewide Residential HVAC program led by SDG&E. In addition, local 3rd-party implementers should consider this recommendation in program design.	Accepted	SCE will continue to include these measures in the residential portfolio of programs. However, realization rates for these offering, e.g., very low for fan motor measures (20%) and super high for duct testing and sealing (205%) suggest that improvement on calculation methods and energy savings forecasting is needed.	Accepted	SoCalGas will continue to consider adding HVAC-related measures on both deemed and direct install, where applicable.	Accepted	SDG&E continues to encourage measures (like fan motor replacement and duct sealing) that are cost effective, easy to implement and have a history of providing consistent savings.

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3	6.3	While the PY2019 evaluation found no gas savings for smart thermostats delivered through direct install programs, the PY2020 evaluation identified gas savings for this measure that are 40% of claimed savings.	Since these results paint a mixed picture, DNV recommends additional study to examine the consistency and stability of the gas savings potential for smart thermostats.	CPUC, All PAs	Accepted	PG&E supports this recommendation.	Accepted	SCE agrees additional study is needed to examine the consistency and stability of the gas savings potential for Smart Thermostats. As related in Impact Evaluation comments, significant variations and inconsistency on PY2020 GRR between DI and Rebate for smart thermostat compared to other program years suggest that measure savings estimation methods (particularly for DI) including engineering estimates and assumptions need additional research. Variations of GRR between DI (6%) and Rebate (71%) is a good example of the variability and uncertainty of the Impact Evaluation data.	Accepted	SoCalGas agrees with the findings of the recent impact evaluation that there are gas savings for Smart Thermostats and future evaluations will support this.	Accepted	The potential gas savings attributed to residential smart controllable thermostat (SCT) has been an ongoing effort which SCG has investigated and taken the PA lead. SDG&E continues to support follow up studies by DNV and others for identifying potential gas savings for SCT.
4	5.2	Over half of those not currently enrolled in a DR program expressed some level of interest in participating in a DR program.	PAs should include information on the benefits of DR program participation for customers that receive free or subsidized smart thermostats through EE programs and implement an option to enroll willing customers at the point of installation.	CPUC, All PAs	Accepted	This recommendation should be considered in the Statewide Residential HVAC program led by SDG&E. In addition, local 3rd-party implementers should consider this recommendation in program design.	Accepted	In March 2021, SCE began to provide information on the benefits of DR program participation—specifically the Smart Energy Program (SEP)—to customers who received a free Smart Thermostat through the Residential Direct Install (RDI) program. Customers who were willing to participate were enrolled in SEP at the point of thermostat installation. SCE will continue to leverage RDI thermostat installations to promote and enroll customers onto SEP.	N/A	N/A	Accepted	The program administrator will work with third-party implementers on including information on the benefits of Demand Response participation.
5	5.2	For direct install programs, relatively high program attribution and higher burden from COVID-19 suggested by survey results indicate that these programs are reaching the right population segments.	Maintain targeting and outreach to these customers.	All PAs	Accepted	This recommendation should be considered in the Statewide Residential HVAC program led by SDG&E. In addition, local 3rd-party implementers should consider this recommendation in program design.	Accepted	SCE will continue to target and outreach to these customers.	Accepted	When applicable, SoCalGas will continue to target customers with high program attribution and higher burden from COVID 19.	Accepted	In response to PGE statement that the recommendation should be considered by the SDG&E Statewide Residential HVAC program, the findings relate to the “Direct Install Program”, which is not applicable to the SW Midstream HVAC Program. SDG&E’s customer program supports this approach and will continue to work closely with the local residential third-party program implementers for targeting those residential customers which have been highly burdened by COVID-19.

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6		For direct install programs, survey data collection was hampered by lack of reliable information regarding parties responsible for decision-making and lack of contact information for end users for direct install programs.	Prescribe program tracking data requirements that include capturing these specifics.	CPUC, All PAs	Accepted	This recommendation should be considered in the Statewide Residential HVAC program led by SDG&E. In addition, local 3rd-party implementers should consider this recommendation in program design.	Accepted	SCE has and will continue to capture contact information for end users of direct install programs. SCE is not currently capturing information regarding parties responsible for decision-making but will conduct further review to determine the feasibility of adding this to program tracking data requirements.	Other	SoCalGas will review data collected from direct install programs to ensure information includes decision makers and appropriate contact information.	Other	In response to PGE statement that the recommendation should be considered by the SDG&E Statewide Residential HVAC program, the findings relate to the "Direct Install Program, which is not applicable to the SW Midstream HVAC program. SDG&E's local residential direct install program will assess the feasibility of collecting information from responsible decision makers for projects. SDG&E's local residential direct install program currently collects end user data and according to section 4 (page 31) of the report, <i>Table 4-1. Summary of account level demographic data provided by the PAs, PY2020DNV report</i> , SDG&E was effective at providing 92% for the DNV account level data request on household characteristics and is committed to improving these metrics.
7		We lack visibility into the electricity consumption of a large number of gas customers for whom electric savings were claimed by SCG. Hence these households are unable to inform the electric savings estimates. This has contributed to poorly determined electric smart thermostat savings for direct install multifamily installations.	Facilitate cross PA identification of customer account IDs for program participants residing in territories served by different electric and gas PAs.	CPUC, SCE and SCG			Other	SCE will further review this recommendation in conjunction with SCG to determine the feasibility of cross PA identification of customer account IDs.	Other	SoCalGas will seek opportunities to partner with electric utilities, which may provide both electric and gas smart thermostat savings for direct install multifamily installations.		