

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 California Advanced Homes Program (CAHP) Billing Analysis (TRC, Calmac ID #PGE0436.01, ED WO #PGE_D_RNC_2165)

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: California Advanced Homes Program (CAHP) Billing Analysis
Program: EM&V
Author: TRC
Calmac ID: PGE0436.01
ED WO: PGE_D_RNC_2165
Link to Report: http://calmac.org/publications/CAHP_Billing_Analysis_Final_Report_2019-05-31.pdf

Item #	Page #	Findings	Best Practice / Recommendations (Verbatim from Final Report)	Recommendation Recipient	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.
1	32	CAHP can influence the load profile of energy use favorably, thereby delivering grid benefits of reduced peak demand and more consistent power draw throughout the day. The data show CAHP influence has produced more favorable load profiles in cooling dominated climates....The avoided costs of these operational changes to the grid are potentially significant.	The program should be considered a viable approach to flattening the duck curve and reducing electricity consumption during the hours when electricity generation is most costly (and most GHG-intensive).	PG&E, Energy Division, CEC	Other	PG&E consulted the other IOUs and we agree with the finding that the CAHP program can likely deliver grid benefits. We would look to Energy Division and the CEC to determine whether the program should be considered a viable approach to flattening the duck curve. Given that the future new construction programs will be implemented by third-parties, PG&E and in general the IOUs can neither accept nor reject this recommendation. We will note this finding when considering future new construction programs as we conduct our Statewide New Construction RFP process.
3	33	The data show that CAHP home median load profiles have significantly reduced afternoon demand in cooling-dominated climates.	The consultant would recommend further study of this result. If CAHP homes and non-CAHP homes were compared using only the hottest 15 days of the year we could quantify the impact that CAHP program influence has on the most expensive electricity used in the year. The study team recommends further research on this result because the load shape performance of CAHP homes could be a significant approach to reducing cost and GHG-emissions from electricity generation during peak days and hours.	PG&E, Energy Division, Future Evaluators	Other	Though we do not disagree with this recommendation, we note that we are in the middle of a Statewide New Construction RFP process which likely will yield a significant change in future iterations of this new construction program. Therefore, we will not consider acting on recommendations for further study at this time.
10	33	The data show that the energy models do not accurately predict consumption. Predicting energy consumption in new construction is challenging because the occupant's behavior (and normal operating conditions) are unknown. Currently there is no routine feedback for the energy model software to learn from actual use patterns.	We recommend further study to investigate whether energy simulation can more accurately predict the pattern of energy use in homes, or some controls mechanism to influence occupant behavior.	PG&E, Energy Division, Future Evaluators	Other	Though we do not disagree with this recommendation, we note that we are in the middle of a Statewide New Construction RFP process which likely will yield a significant change in future iterations of this new construction program. Therefore, we will not consider acting on recommendations for further study at this time.
11	33	We would like to address the question: which occupant behaviors correlate with energy consumption patterns in CAHP and non-CAHP homes? This study	The consultant does recommend a future study be funded to evaluate impact of resident demographics on energy consumption in CAHP and non-CAHP	PG&E, Energy Division, Future Evaluators	Other	Though we do not disagree with this recommendation, we note that we are in the middle of a Statewide New Construction RFP

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		could not explain the reasons why EUI, or utility cost variations occurred, but we hypothesize that occupant demographics differences between San Francisco and other clusters may be one significant factor driving the result that San Francisco shows the highest utility spend difference between CAHP and non-CAHP homes of any cluster. We suspect that EUI results may also be influenced by demographics—if certain occupants are less cost constrained, perhaps they use energy more frequently and have a higher plug load density.	homes. The demographics study could help CAHP predict use patterns and improve performance within certain customer segments with targeted program treatment			process which likely will yield a significant change in future iterations of this new construction program. Therefore, we will not consider acting on recommendations for further study at this time.
12	33	The study team did not perform analysis to conduct gas end use appliance accounting. Any systematic difference between which equipment and appliances are gas in CAHP and non-CAHP houses will greatly impact our results.	We recommend future study to rerun the analysis presented in this project by clustering homes by fuel-type and by end use. We expect that the EUI and utility cost performance of homes is influenced by whether the water heater and the heating system uses electricity or natural gas. We would expect to find that the results would show that homes with natural gas water heating cost less money to operate throughout the year.	PG&E, Energy Division, Future Evaluators	Other	Though we do not disagree with this recommendation, we note that we are in the middle of a Statewide New Construction RFP process which likely will yield a significant change in future iterations of this new construction program. Therefore, we will not consider acting on recommendations for further study at this time.