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. This Appendix contains the Responses to Recommendations in the report:

RTR for the 2014 Nonresidential Downstream Deemed ESPI Lighting Impact Evaluation Report (Itron, Calmac ID #CPU0139.01, ED WO #ED_I_LTG_5)

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 2013-2016 Energy Division-Investor Owned Utility Energy Efficiency Evaluation, Measurement and Verification (EM&V) Plan¹ and CPUC Decision (D.) 07-09-043².

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.

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.

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."

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: 2014 Nonresidential Downstream Deemed ESPI Lighting Impact Evaluation Report

Program:	Lighting
Author:	Itron
Calmac ID:	CPU0139.01
ED WO:	ED_I_LTG_5
Link to Report:	http://calmac.org/publications/Deemed_Lighting_Report_FINAL_20160329.pdf

ltem #	Page #	Findings	Best Practice / Recommendations (Verbatim from Final Report)	Recommendation Recipient	Disposition	
				If incorrect, please indicate and redirect in notes.	Choose: Accepted, Rejected, or Other	Describe specifi
1	6-1	Measures installed under programs that assume a program-induced early retirement and utilize a dual baseline were split between the ex post classification of early replacement (ER) and re- place on burnout (ROB), as opposed to being all ER.	Programs that are allowed to claim program- induced early retirement for lighting measures should only assume that a portion of the installa- tions are actually early retirement. It may not be feasible or practical to gather enough evidence to determine if each customer should be classified as ER or ROB. Therefore, for deemed measures assuming program-induced early retirement and utilizing a dual baseline, an "average" case needs to be developed, where the RUL and post-RUL period UES values are developed as a combined value of the ER and ROB cases. When combining the ER and ROB values to- gether, the results of this evaluation can be used to estimate the percentage of installations that are ER.	PG&E, SCE, SDG&E	Other	The IOUs are op termine ER and certain cases, co mate the percer ferred methods
2	6-1	The average replaced wattages for screw-in LED A-lamps have decreased over the 2010-12 to 2013-14 evaluation cycles. On-sites conducted as part of the 2010-12 Nonresidential Downstream Lighting Impact Evaluation, found that LED A- lamps rarely replaced CFL lamps (only in 1% of the onsite visits). As part of this and the 2013 ESPI evaluation, over a quarter of the on-sites (where the baseline equipment could be determined) found LED A-lamps replacing CFLs. Therefore, there has been a trend over time of more LED A- lamps replacing CFLs, which has resulted in a de- crease in the baseline wattage.	Future evaluations should continue to track the re- placed/baseline wattage of LED installations to de- termine if an increasing percentage of CFLs are be- ing replaced over time.	PG&E, SCE, SDG&E	Accepted	The IOUs agree this information updates through gy mix and watt Deemed Program information. Pre ER measures, no Studies should of placed/baseline communicate the dressed through Ex ante tracking cording to proto CPUC.

Disposition Notes

Examples: ific program change, give reason for rejection, or indicate that it's under further review.

open to further exploration of the best ways to ded ROB mix and quantification in Ex Ante reporting. In combining ROB and ER values can be used to estirentage of ER, depending on the technology. The preds must ultimately be approved by the CPUC.

e that Impact evaluations should continue to capture on which then potentially inform future work paper gh Energy Division dispositions on baseline technoloattage reduction ratios for LED lamp measures.

rams are not set up to capture pre-existing baseline Pre-existing baseline information is only relevant for not ROB measures like the LED A-lamp measures.

d continue to support and continue to track the rene wattage of LED installations. Program staff will also this desire with the EM&V team so it can be adgh the statewide EM&V coordinating groups.

ng data combining ER and ROB will be produced actocols understandable by, and acceptable to, the

3	6-1 to 6-2	There are measure names for high bay fixtures that do not specify the baseline equipment, and others that combine T5 and T8 fixtures as the installed measure. Some measure names did not specify if the installed equipment was a T5 or T8 measure. The wattage associated with these two types of fluorescents can differ, making it im- portant to specify the measure being installed. Other measure name did not specify if the base- line equipment was metal halide or linear fluores- cent technologies. Again, the wattages associated with these two types of baseline equipment can differ, making it important to specify the equip- ment being replaced. Finally, some measure names that specify a T5 installation were actually found to be T8 systems.	Measure names for high bay linear fluorescent technologies should specify both the installed equipment (T5 or T8) and the baseline equipment being replaced (metal halide or linear fluorescent).	PG&E, SCE, SDG&E	Other	In circumstances tinue in 2018, the be addressed in IOU will sunset to tion could not b
4	6-2	The workpapers for some early replacement lin- ear fluorescent high bay measures were claiming savings for code compliant lighting controls dur- ing the RUL period. The reasoning behind this is that a high bay retrofit may trigger code, requiring that lighting controls be installed. If the measure is early replacement, then the code required light- ing control would be reducing operating hours during the RUL period. Then, in the post-RUL pe- riod, the lighting control would become part of the ISP baseline, so the reduction in operating hours could no longer be claimed. However, the evaluation found that only one percent of the on- site sample for high bay fluorescent participants installed a non-rebated lighting control as a result of their installation. Furthermore, in the instances when a lighting control was being installed along with the high bay installation (which occurred in 35% of the sample), the control received a rebate and savings was being claimed under the program 96% of the time. Therefore, significant double counting of the savings associated with the con- trol was occurring.	High Bay Lighting Installations should not be al- lowed to take credit for a reduction in operating hours due to the installation of code compliant lighting controls, if controls are offered under the IOU portfolio of measures.	PG&E, SCE, SDG&E	Accepted	The IOUs have b applicable, and
5	6-2	Programs installing dual baseline measures can influence both the timing and the efficiency of the measure installed. During the RUL period, both timing and efficiency can be influenced by the program; however during the post-RUL peri- od, the program can only influence the efficiency of the installed equipment.	Further research should be done to consider a framework for NTGRs that can be applied to measures that have a dual baseline, where separate NTGRs are developed for the RUL and post-RUL pe- riods to incorporate the program's influence on both the timing and efficiency of the installed equipment.	PG&E, SCE, SDG&E	Other	The IOUs request bleness to warra The IOUs are co amount of unne gets, with no ce be opposed to t all California-eva

ces where high bay linear fluorescent measures con, , these specific measure name recommendations can in workpaper design. It is possible that one or more et these measures, in which case this recommendat be applied.

e been in line with the recommended practice where nd therefore agree with this recommendation.

uest more support for the IOUs to determine reasonanrant further research.

concerned that dual NTG values would add a great necessary complexity to claims toward program tarcertainty as to benefit or precision. The IOUs would o the implied future free-ridership estimates because evaluated NTG values are based on estimates of free

						ridership at the
						If this recomme such as adding the Energy Divis understanding.
						The IOUs would tially to the stat
6	6-2	Installation rates were found to be less than 100% for all measures studied. Installation rates are a function of installed and operable measures and exclude the percentage in storage, failed and/or removed.	Apply installation rates to ex ante claims by meas- ure and by gross program group. To develop ex ante claims, the ex ante savings values should be adjusted by installation rates. Because installation rates vary by measure and delivery mechanism, separate instal- lation rates should be applied by measure and by gross program group (or some combination of deemed, direct installation, third party and LGP pro- gram groupings).	PG&E, SCE, SDG&E	Accepted	Ex ante values a tions through th

he time of program participation.

mendation is pursued, methodology could be applied, ng fields to the DEAR/READI, CEDARS, AND THE CET, at ivision's choosing. This might contribute to a broader ng.

uld like to redirect this recommendation at least partatewide EM&V coordinating groups.

es are already being adjusted based on ex-post evaluan the workpaper and DEER update process.