

## 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 2015 Nonresidential Downstream ESPI Deemed Pipe Insulation Impact Evaluation: Final Report*** (Itron, ERS; Calmac ID #CPU0165.01; ED WO #ED\_I\_Com\_7)

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) Plan<sup>1</sup> and CPUC Decision (D.) 07-09-043<sup>2</sup>.

Individual RTR reports consist of a spreadsheet for each evaluation study. Recommendations were copied verbatim from each evaluation’s “Recommendations” section.<sup>3</sup> 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.

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<sup>1</sup> 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>.

<sup>2</sup> 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.”

<sup>3</sup> 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:** 2015 Nonresidential Downstream ESPI Deemed Pipe Insulation Impact Evaluation: Final Report  
**Program:** NR Deemed  
**Author:** Itron, ERS  
**Calmac ID:** CPU0165.01  
**ED WO:** ED\_I\_Com\_7  
**Link to Report:** [http://calmac.org/publications/PipeInsulationReport\\_2015\\_Final\\_with\\_Appendices.pdf](http://calmac.org/publications/PipeInsulationReport_2015_Final_with_Appendices.pdf)

Item #	Sec. #	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	6	The average diameter of insulated pipe was considerably higher for all customers and fluid types in the high- diameter tier. The PAs separated pipe insulation measures by diameter: less than 1" (0.7" average assumed in IOU calculations) and greater than or equal to 1" (1.7" average assumed in IOU calculations). Evaluators determined a greater average diameter for the latter tier, for all fluid-customer permutations: large commercial hot water (4.3" diameter on average), large commercial medium-pressure steam (2.5"), industrial hot water (2.4"), and industrial medium-pressure steam (3.2"). Greater-than-assumed diameter leads to higher savings per insulated linear foot.	An additional tier for large-diameter piping should be added to the tracking protocol for pipe insulation measures. Currently, the program includes two savings tiers based on pipe diameter: less than 1" diameter piping, and greater than or equal to 1" diameter piping. However, both in the PY2013-14 evaluation and this study, evaluators found that a significant portion of rebated piping (approximately 62% by pipe length in PY2015) had a diameter of 3" or greater. Higher-diameter piping leads to higher thermal mass and heat losses, and therefore higher savings after insulation. The evaluation team therefore recommends that the program incorporate a large-diameter tier, for piping greater than or equal to 3" in diameter, for future program tracking to ensure more accurate savings estimation.	SCG	Accepted	By 1/1/2018, SoCalGas plans to have a workpaper update on Pipe Insulation measure to address the additional tier for large insulation piping.