

## 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:

<b><i>RTR for the Impact Evaluation of 2013-2014 SDG&amp;E Residential VSD Pool Pump Program</i></b> (DNV GL, Calmac ID #CPU0132.01, ED WO #ED_D_Res_6)
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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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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>.

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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.”

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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 2013-2014 SDG&E Residential VSD Pool Pump Program  
**Program:** Res. VSD Pool Pump Program – Single Family  
**Author:** DNV GL  
**Calmac ID:** CPU0132.01  
**ED WO:** ED\_D\_Res\_6  
**Link to Report:** [http://calmac.org/publications/Res6\\_2013-2014\\_SDGE\\_VSD\\_Pool\\_Pump\\_Program\\_Evaluation\\_FINAL\\_REPORT\\_to\\_CALMAC.pdf](http://calmac.org/publications/Res6_2013-2014_SDGE_VSD_Pool_Pump_Program_Evaluation_FINAL_REPORT_to_CALMAC.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	33	<i>Energy savings.</i> The ex post gross and net energy savings found by DNV GL's evaluation were very close to the ex ante estimates used in SDG&E's ESPI workpaper, with 105% gross savings realization rate and 117% net realization rate.	While the program achieved high realization rates, the evaluation suggests that updates to the workpaper assumptions for high-speed power draw, daily pool turnover, and run time in both high and low-speed are warranted. The high realization rates found by this evaluation should help alleviate some of the uncertainty that was initially associated with VSD pool pump savings estimates.	SDG&E	Accepted	SDG&E accepts.
2	33	<i>Demand savings.</i> The ex post demand savings, both gross and net, were more than double the ex ante estimates for demand savings.	The workpaper simply averaged the demand reduction in high and low speed (which assumed equal time in both modes) whereas the evaluation found that during peak times VSD pumps do not run in both modes an equal amount of time and used the actual run time in each mode to calculate average site-level demand. Additionally, DNV GL believes that there is an opportunity to achieve additional demand savings with a program or outreach initiative focused on shifting the programmed VSD pump schedule to operate off-peak.	SDG&E	Accepted	SDG&E accepts.
3	33	<i>Customer education.</i> Anecdotally, through talking with on-site contacts, DNV GL field staff found that the majority of program participants were not well informed about their pool pump operation, schedule, or how to maintain the pump to achieve the expected energy savings.	While the program already provides training to contractors and program marketing materials to participants, there is an opportunity to further educate program participants through a simple flyer or leave behind provided by the pool pump contractor focused on pump operation and maintenance that could help participants and the program achieve the desired level of energy savings.	SDG&E	Accepted	SDG&E accepts. Further educational content will be incorporated on Marketplace that is currently fulfilling 99% of SDG&E's downstream incentives. SDG&E will have a new implementer agreement effective January 1, 2017 that will provide flyers to contractors for participants.

4	33	<p><i>Future evaluation.</i> To improve on the precision achieved by this evaluation and further reduce the uncertainty around VSD pool pump energy and demand savings, DNV GL recommends a larger and more robust evaluation of VSD pool pumps in the future.</p>	<p>DNV GL recommends that any future evaluation should attempt to measure consumption of non-participants or code-compliant two-speed pool pumps in order to improve the baseline estimate. Additionally, DNV GL recommends a larger sample for future evaluations, which is necessary to improve precision given the large degree of variability of savings on a site by site basis. Lastly, DNV GL recommends a much longer monitoring period to better capture seasonal changes and timing across sites.</p>	SDG&E	Rejected	<p>SDG&amp;E has no intention of evaluating non-participants. That is outside scope parameters.</p>
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