

## 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 Tool Lending Library Program Evaluation*** (Opinion Dynamics, Calmac ID #CPU0177.00, ED WO #ED\_O\_WET\_4)

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:** Tool Lending Library Program Evaluation  
**Program:** WE&T  
**Author:** Opinion Dynamics  
**Calmac ID:** CPU0177.00  
**ED WO:** ED\_O\_WET\_4  
**Link to Report:** [http://calmac.org/publications/TLL\\_Evaluation\\_Report\\_FINAL\\_2017-12-18\\_CLEAN.pdf](http://calmac.org/publications/TLL_Evaluation_Report_FINAL_2017-12-18_CLEAN.pdf)

Item #	Page #	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.
1a	46	<b>The PEC should consider tracking additional categorical details at the project-level for each tool loan.</b> Based on our review of the program tracking database, it is clear that the PEC has a robust database that tracks information on tool borrowers, tools, loans, job classifications of borrowers, and projects. While these data are extremely valuable and PEC has a well-designed TLL database, structurally speaking, much of the project information is presently captured in open-ended variables. As open-ended descriptions of projects rely on tool borrowers to adequately explain various project details, this creates some inconsistency in terms of which specific information are tracked for any given project. Further, tracking additional data fields during the tool loan process will aid in streamlining evaluations and limited the additional survey burden on borrowers. As such, the PEC should consider tracking the following information using categorical multiple response variables:	PG&E	Accepted	PG&E wants to collect the data that is most valuable to PG&E, program evaluators, and other IOUs. Our new inventory tracking system (myTurn) is flexible enough to enable changes and additions when they are warranted. Data gathering must be balanced with brevity and consistency so our borrowers are neither over-whelmed nor confused by frequent changes. PG&E plans to have additions to existing data collection completed in 2018.	Accepted	SCE agrees that we should track additional data, such as specific information on project details and have explored the idea of adding additional fields in the past. Our current online request form has limitations and we may lose some customers as they might opt out if they're required to submit additional information. SCE agrees with these recommendations and will pursue efforts to acquire the myTurn software.	Other	SoCalGas does not currently operate a Tool Lending Library. Any future consideration would prioritize statewide consistency with other IOUs.	Accepted	SDG&E plans to move to myTurn in 2018 and will collect the recommended data.
1b	46	<b>Project Types:</b> TLL staff should consider creating a variable that allows borrowers to select the various activities that their tool loan will support—such as, energy benchmarking, retrofit or replacement of existing equipment, measurement and verification, operations and maintenance, retro-commissioning, solar PV, and educational and training. This will enable program staff and decision makers to quickly and easily determine which tool loans supported projects likely to produce direct savings or renewable generation, and which may lead to indirect savings (see Section 5.2).	PG&E	Accepted	PG&E currently has an attribute called Project Phase which can be expanded to include project type. Current values are the common 4 project phases (preliminary investigation, audit, baseline, and post-project verification) and education. Recasting this as a variable for project types could add to the existing values or replace them with those mentioned here. The larger challenge is identifying the end users of this additional information so we can be confident that the result meets current and future needs as much as possible. In many instances we receive this information in	Accepted	SCE is currently evaluating whether or not to purchase the myTurn software. If and when SCE purchases My Turn, it will collect the recommended data.	Other	SoCalGas does not currently operate a Tool Lending Library. Any future consideration would prioritize statewide consistency with other IOUs.	Accepted	SDG&E plans to move to myTurn in 2018 and will collect the recommended data.

					narrative form in the project description, but more actionable data results from selection lists (checkboxes, radio buttons, dropdown picklists, etc.). PG&E plans to support the acquisition of project type data at the project level completed in 2018.						
1c	46	<ul style="list-style-type: none"> <li>• <b>End-use Equipment:</b> Tracking the different end-uses (e.g., lighting, space heating, hot water, or ventilation) will add more detail to the types of projects that loans support. Additionally, tracking the combination of end-uses supported by different loans may help decision makers identify trends, such as packages of measures frequently supported by tool loans. These data may help inform future educational and program offerings that could help drive deeper savings.</li> </ul>	PG&E	Accepted	The PG&E WE&T program is moving toward being more aligned with areas of high energy efficiency potential. Knowing the end-uses for the tools borrowed from the TLL would help PG&E assess how well tool loans aligned with areas of high EE potential. PG&E plans to support the acquisition of end-use equipment data at the project level completed in 2018.	Accepted	SCE is currently evaluating whether or not to purchase the myTurn software. If and when SCE purchases My Turn, it will collect the recommended data.	Other	SoCalGas does not currently operate a Tool Lending Library. Any future consideration would prioritize statewide consistency with other IOUs.	Accepted	SDG&E plans to move to myTurn in 2018 and will collect the recommended data.
2a	46	<p><b>If TLL staff and decision makers choose to claim savings from the TLLs, they should take the following considerations into account.</b> The decision to claim savings from the TLLs in the future may have implications on the types of loans TLLs issue, administrative costs and burdens for TLL staff and borrowers, and challenges with claiming savings for a single project in multiple programs. As such, TLL staff and decision makers should consider the following:</p>									
2b	46	<ul style="list-style-type: none"> <li>• <b>Whether to move forward with an indirect impact evaluation, which would require additional data collection from TLLs.</b> Close to half (44%) of all projects supported by 2016 tool loans did not realize direct savings or lead to renewable energy generation as a result of their tool loan. There may be opportunities to claim indirect savings from these, and other TLL supported activities. As such, decision makers may consider moving forward with an indirect impact evaluation combining survey data collection with secondary research to match specific TLL-induced activities and energy savings. Any such effort would require an investment in additional data collection activities by TLL staff as expressed above.</li> </ul>	All IOUs	Accepted	PG&E sees the value of a regular indirect impact evaluation for the TLL approximately every 3 to 5 years, and propose doing another evaluation in 2022.	Accepted	Due to the costs and resources associated with an indirect impact evaluation SCE agrees with one conducted every 3-5 years.	Other	SoCalGas does not currently operate a Tool Lending Library. Any future consideration would prioritize statewide consistency with other IOUs.	Accepted	Due to the costs and resources associated with an indirect impact evaluation SDG&E agrees with one conducted every 3-5 years.
2c	47	<ul style="list-style-type: none"> <li>• <b>Added transaction costs.</b> As noted above, claiming savings from TLL supported projects may require additional resources for TLLs, such as additional dedicated staff to verify application materials, review savings calculations, provide guidance on best practices, and, where necessary, perform on-site verification. Additionally, TLL staff would need to track all information from all projects and activities supported by a particular tool loan, as loans may support more than one project. This would also increase the administrative burden on tool borrowers and could even delay project implementation, in the</li> </ul>	All IOUs	Rejected	In 2012, PG&E explored the possibility of claiming savings for the TLL. Based on the self-reported savings for non-EE program projects (which would be claiming those savings), we concluded that capturing the potential energy savings would not justify the costs, labor, and effort required to formally claim savings. PG&E is not interested in pursuing credit for energy savings at this time.	Rejected	SCE is not interested in pursuing credit for energy savings at this time.	Other	SoCalGas does not currently operate a Tool Lending Library. Any future consideration would prioritize statewide consistency with other IOUs.	Rejected	SDG&E is not interested in claiming savings through the TLL due to a variety of constraints.

		event that program staff need to review and verify the specifics of the project.									
2d	47	<ul style="list-style-type: none"> <li>• <b>Claiming savings from multiple programs.</b> Forty-five percent of all borrowers surveyed representing projects with direct savings received a rebate from another PA demand-side program. In the event that the TLLs claim savings, stakeholders will need to develop an appropriately rigorous set of protocols for differentiating between the savings attributable to the TLL and those induced by the other PA program. Such methods may also involve sharing savings between multiple different PAs as some tool loans support projects in a different PA's service territory. There are other examples of behavioral programs (e.g., Strategic Energy Management or Home Energy Report programs) that have successfully avoided double counting savings. Decision makers and program staff would therefore need to carefully develop a process for tracking cross-participation.</li> </ul>	All IOUs	Rejected	PG&E is not interested in pursuing credit for energy savings at this time.	Rejected	SCE is not interested in pursuing credit for energy savings at this time.	Other	SoCalGas does not currently operate a Tool Lending Library. Any future consideration would prioritize statewide consistency with other IOUs.	Rejected	SDG&E is not interested in claiming savings through the TLL due to a variety of constraints.
3	47	<p><b>TLL decision makers and staff should build on education and support offered to tool borrowers.</b> Education and training offered by TLL staff are a central component of the services that TLLs offer. Of those that received training through their TLLs--beyond their application notes--in 2016 (n=37), 89% found the information "very useful," indicating that TLLs are very effective in this area. Further, the PEC's dedicated technical staff provide training and technical assistance on an "as needed" basis to borrowers. However, only 35% of <u>all</u> borrowers in 2016 received this additional training, which included energy center courses and ad hoc training from dedicated TLL staff. While providing education and training is clearly a strength of the TLLs and energy center staff, the majority of borrowers do not take advantage of these offerings beyond the applications notes and basic instructions they receive with their loan. Energy center stakeholders should consider building on existing strategies to deliver this component to a larger share of borrowers. For example, the PEC has recently created a set of printed materials referred to as Measurement Protocols that go beyond basic operating instructions and discuss best practices for maximizing savings through the types of activities that tool loans generally support. Additionally, similar to the PEC, dedicating technical staff to be available to borrowers to provide advice and technical assistance may help TLLs maximize any indirect savings resulting from tool loans.</p>	All IOUs	Accepted	In addition to the Energy Measurement Protocols, PG&E plans to introduce on-demand video training for a subset of TLL tools in 2019. These types of short training videos and measurement-specific materials are a better way to educate TLL customers on specific tools and measurement techniques than offering full-day classes. The PG&E WE&T program will continue to offer classes that have students utilize tools as a way of incorporating hands-on learning.	Accepted	SCE agrees with this recommendation and plans to offer more hands-on support to borrowers through training and consultations.	Other	SoCalGas does not currently operate a Tool Lending Library. Any future consideration would prioritize statewide consistency with other IOUs.	Accepted	SDG&E agrees with this recommendation and plans to offer more hands-on support to borrowers through training and consultations.