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 Final Impact Evaluation: Small/Medium Commercial Sector—Program Year 2019 (Quantum Energy Analytics, DNV GL, Tierra; Calmac ID #CPU0225.01)

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.) 07-09-043[1] and the Energy Division-Investor Owned Utility Energy Efficiency Evaluation, Measurement and Verification (EM&V) Plan[2] 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.

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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: Final Impact Evaluation: Small/Medium Commercial Sector—Program Year 2019
Program: SMB
Author: Quantum Energy Analytics, DNV GL, Tierra
Calmac ID: CPU0225.01
Link to Report: http://calmac.org/publications/___SmCom__FULL_Final.pdf

					PG&E (if applicable)		SCG (if applicable)		SDG&E (if applicable)	
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				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.
1	5	The addition of ozone laundry equipment is generally an effective technology for reducing hot water used by laundry equipment, resulting in energy savings. With ozone laundry equipment in place, laundry cycles are typically completed using less hot water, and the hot water temperature setpoint for the water heating system is lowered. Both factors combined contribute to a reduction in natural gas used to heat water, in a water heater or boiler that provides hot water to a given laundry facility. Furthermore, the ozone that is introduced into the water supply used by laundry equipment enhances sanitation, including the destruction of microorganisms, like bacteria and viruses, that can cause disease. The measures' dual effectiveness in combating climate change through energy savings and reducing the likelihood of contagious disease outbreaks makes this technology highly attractive as a program offering.	We recommend that this technology not only continue to be offered by the programs, but that the PAs' increase participation levels through additional marketing and outreach supporting uptake of ozone laundry equipment.	PG&E, SCG and SDG&E	Accepted	PG&E has continued to promote both ozone laundry internally with PG&E Customer Relationship managers, with customers on our website and through additional recruiting of Ozone focused Trade Allies.	Other	SoCalGas has sunsetted this measure.	Other	As programs transition to third-party implementation, the IOUs will have less control over program design and implementation. SDG&E will take the recommendation and share it with its program implementers who determine which technologies to actively market and incentivize.
2	5	Out of a total sample size of 35 sites we sampled 1 San Diego Gas and Electric (SDG&E) pro-	We recommend that large-scale projects of this nature are better served through a custom program channel where site-level reported savings are	PG&E, SCG and SDG&E	Accepted	In the case of larger projects, it is agreed more savings could be achieved by utilizing the custom pathway. Given	Other	SoCalGas has sunsetted this measure.	Other	SDG&E will take the recommendation and share it with its program implementers for further consideration, however custom projects with deemed

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		ject, with a program-based savings estimate that accounts for 37% of all reported savings across all PAs. While this project had great potential to save energy using ozone laundry equipment, the customer did not substantially adjust the hot water use per laundry load or change the water temperature settings, which resulted in a gross savings realization rate for this project of just 5%. While the resulting downward effect on the overall realization rate is substantial, the statewide result is still decent at nearly 80% of the reported savings. However, the effect on realized SDG&E savings is much greater, resulting in a realization rate of just 36%. It is also notable that this business does not appear to be eligible to participate. This participating business supplies linens and work uniforms. The relevant SDG&E workpaper only allows participation in fitness, nursing home, correctional and hotel/motel facilities.	adequately vetted through the program application process. Using a custom channel instead of a deemed program approach would likely have produced a more reliable estimate of PA-reported savings for this project. Custom program projects typically undergo a more rigorous verification of operating conditions that are in-turn incorporated within the project saving estimates.			the level of effort to successfully complete a custom project, extra diligence should be employed to ensure the customer qualifies for the program. It should be noted however, a large portion of the success with Ozone laundry within the portfolio has been connected to the nature of deemed measures, which is easier for customers to understand and contractors to sell and execute, while the custom approach is more nuanced. We'd contend there is room for both channels (deemed/custom) depending on the size of the project and the reward mechanisms for the facility and corporation involved.				measures are required to use the deemed values for energy savings, as noted in the latest draft DEER resolution (E-5152). SDG&E will also ensure that large-scale projects, meaning projects with washers that exceed the capacity limit in the approved statewide workpaper, are not served through a deemed channel.
3	5	Ozone laundry equipment installations are not always properly screened for eligibility requirements. We found that two of our sample points replaced existing ozone laundry equipment with new equipment. The replaced ozone laundry equipment have equivalent functionality to the newly installed ozone laundry equipment, resulting in no savings being realized by the grid. CPUC policy does not allow programs to install like-for-like energy efficiency replacements. It is also notable that the program standards exclude eligibility for replacing ozone laundry equipment.	The program's application and review process should be enhanced to better screen projects against eligibility requirements and exclusions.	PG&E, SCG and SDG&E	Accepted	We have seen ozone contractors ask if they can update an existing ozone system which is older than 5 years with a newer system. We direct them to the catalog stated exclusion "replacements of existing ozone laundry systems, whether functioning or not, do not qualify". To our knowledge we have not experienced like for like incidents.	Other	SoCalGas has sunsetted this measure.	Accepted	SDG&E will collaborate with its third-party program implementers on how to better screen projects against eligibility requirements and exclusions.

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4	5	The percent reduction in hot water use, the number of laundry cycles per day and the reduction in hot water temperature settings generally brought down the resulting realization rate for SDG&E.	We recommend that the programs strengthen program requirements surrounding percent reduction in hot water use, number of laundry cycles per day and the reduction in hot water temperature settings to ensure adequate savings for all participating projects.	PG&E, SCG and SDG&E	Accepted	SCG is the lead IOU for this WP to update. PG&E agrees that hot water usage reduction on the washer setting should be included as the reminder after installation. It may make sense to include it as WP Program Requirements section. In addition, WP Program Exclusions section should include that it will not be eligible if the customers already have existing ozone laundry equipment. However, current WP methodology is based on hot water temperature as 135 F throughout the cycle, might make sense to update the methodology as cycle steps with different temperature. Then, the temperature reduction on settings can be recommended as part of program requirement.	Other	SoCalGas has sunsetted this measure.	Accepted	The given PA-specific workpaper has since been retired and replaced with a statewide workpaper. SDG&E is in the process of developing internal measure properties for our third-party implementers to assure technical requirements, such as those recommended, are satisfied.
5	5	We selected ex post model-based parameters to present in Chapter 5 on the basis that they would be most useful to any future workpaper updates. In fact, several of the factors we presented do currently contribute to workpaper-based savings estimates. Also shown are ex post unit energy savings values expressed in a way that parallels ex ante workpaper values that are applied to the tracking data (expressed per pound of laundry machine capacity).	In support of any future workpaper updates for ozone laundry measures, it is recommended that the PA workpaper team mines this data source and applies our findings where feasible and, as noted above, modify program requirements to ensure all projects deliver adequate program savings. Furthermore, our evaluation team has assembled a model for estimating ozone laundry equipment savings, and in doing so has amassed industry knowledge, tools and experience that can be shared with the workpaper team in order to hopefully improve the accuracy of resulting workpaper-based savings estimates and better align PA and evaluation results.	PG&E, SCG and SDG&E	Accepted	SCG is the lead IOU for this WP to update. PG&E agrees that parameters and data provided in Small/Medium Commercial 2019 EM&V chapter 5 should be referenced as applicable on the future WP update.	Other	SoCalGas has sunsetted this measure.	Other	SDG&E will collaborate with PG&E, the statewide lead, on future workpaper updates.
6	5	In some cases we found that the gross impact sample and participants in the program tracking data do not always conform with program business type eligibility requirements. Interestingly, these eligibility criteria are found to vary across PA workpapers, but the universe of eligible businesses includes hotel/motel, health facilities, nursing homes, correctional facilities and fitness centers. Within the sample exceptions to this include a commercial laundry, a	We recommend that the program either better screen businesses for eligibility based on business type, or if warranted, expand the availability of businesses that can participate. We also recommend better alignment among the PA workpapers in terms of businesses that are eligible and a consensus on why.	PG&E, SCG and SDG&E	Accepted	Unlike from IOU WPs during 2019, latest SW WP includes Building type as Any. However, it might make sense to add additional building type that are currently not mentioned in the WP such as Fitness Center, Commercial Laundry and so on.	Other	SoCalGas has sunsetted this measure.	Accepted	SDG&E will collaborate with its third-party program implementers on how to better screen businesses for eligibility. The workpaper has since transitioned to a statewide workpaper, which has created more standardization across the PAs.

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		party rental store, a linen and work apparel supplier and lodging facilities (that are not hotel/motels). In fact, we even observed business type exceptions to the eligible business list using business type variables available in the program tracking system.								
7	5	We found that VFD controls installed through the programs are not being properly screened in many cases for eligibility criteria. Out of a total sample size of 45 pumps, commonly observed reasons for failing eligibility requirements includes the installation of speed controls in the following cases: • 5 pumps run fewer than 1,000 hours per year • 2 pumps pump well water into a water storage reservoir or trucks • 12 pumps have settings that are at or near full load • 4 pumps that previously ran uncontrolled. Many of the VFDs are installed on new pumps that irrigate trees that have been planted in the last couple of years; this results in low run hours, many below 500 hours per year.	The program's application and review process should be enhanced to better screen projects against eligibility requirements and exclusions.	PG&E, SCG and SDG&E	Accepted	Will add more restriction to the program eligibility and exclusion to both the workpaper and program's requirements. Improving the applications screening process as recommended is a must, as the program will experience a reduction of the NTG by 50% for year 2022. This measure needs a major overhaul in order to stay relevant, especially in a time where water conservation is critical.	Rejected	Not applicable to SCG.	Accepted	SDG&E will clarify application eligibility requirements and consider adding additional measure properties.
8	5	In most cases, pump operations can be readily characterized using interval billing data, such as hourly demand measurements for a given pump. In fact, our evaluation applied interval billing data as a key model input used to determine VFD savings.	We recommend that the programs make use of interval billing data for characterizing pump operations, including use of those data to derive updated estimates of deemed savings for the pump VFD measure, and as screening criteria for pump run hours.	PG&E, SCG and SDG&E	Accepted	The original workpaper was based on data collected over year of research; at that point, it was the best database available. Using meter data is a good recommendation but will requires us to modify the workpaper significantly.	Rejected	Not applicable to SCG.	Rejected	Deemed projects utilize the savings values in the approved workpaper, which are intended to provide a reasonable and cost-effective estimate of the expected savings as compared to a custom approach, which better lends itself to assessing interval billing data for a given site. Even custom projects with deemed measures, however, are required to use the deemed values for energy savings, as noted in the latest draft DEER resolution (E-5152).
9	5		The PAs should continue to track and report Service Account IDs (SAID) of meters that are affected by VFD installation. Overall, the PAs did a good job of identifying the affected customers	PG&E, SCG and SDG&E	Accepted	While matching irrigation pumps to the appropriate meter can at times be challenging, it is a known challenge that our field teams put extra effort into getting	Rejected	Not applicable to SCG.	Accepted	SDG&E will continue to track and report Service Account IDs for projects within its service territory that have a VFD pump installation.

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			meters and accounts where loads were affected by VFD installation, but there were a few instances where this was not the case. Best practice would be to ensure that each record in the tracking system has a SAID that corresponds with the installed VFD/pump.			right. Hopefully that is part of the diligence which is reflected in the comments and recommendations offered.				
10	5	Beside the potential to save energy, there are other common reasons that farmers will decide to install VFD controls on crop irrigation pumps. In fact, some pumps cannot continue to be operated without the VFD due to operational requirements, such as the use of VFD controls to automatically adjust pump speed in response to pressure settings, or due to sand contamination in the well water column that can be controlled using VFD pump speed settings. Another common reason is that the VFD pump gives the farmer the ability to monitor and control the pump remotely, from a desk in their office. Furthermore, the VFD pumps can save on equipment maintenance and extend the life of the pump. This results in a high free ridership rate for VFD controls because a considerable number of farmers indicate that they would have installed VFD controls independent of the program / incentive.	For these reasons, we recommend that the appropriate baseline be determined as a function of pump type and size. Current deemed savings estimates assume a throttle valve flow control baseline, in which partially closed valves are used to control pump flow. However, this assumed baseline ignores the fact that VFD flow controls are commonly installed, even without the influences of program intervention.	PG&E, SCG and SDG&E	Rejected	This is a problem of eligibility and screening as described in previous rows, not a baseline problem. Projects that have VFDs shouldn't be allowed under this program. We found many systems use a soft starter not a VFD due to the large pump motor size, but soft starters cannot be used to control flow.	Rejected	Not applicable to SCG.	Other	SDG&E will collaborate with PG&E, the statewide lead, on future workpaper updates.
11	5		We recommend that the results of this evaluation, and any trends observed, should be considered for any workpaper updates for the agricultural pump VFD measures, in order to improve the accuracy of future workpaper estimates.	PG&E, SCG and SDG&E	Accepted	Energy savings methodology needs to be reassessed in order to improve the energy savings accuracy and to improve measure's economics since the NTG was reduced by 50% for 2022. Without major changes this measure may not survive	Rejected	Not applicable to SCG.	Other	SDG&E will collaborate with PG&E, the statewide lead, on future workpaper updates.
12	5		The program's application and review process should be expanded to increase the range of irrigation pump performance information captured in the ex ante tracking databases. We recommend that the PAs consider including fields within the project application	PG&E, SCG and SDG&E	Accepted	Eligibility and exclusions must be revised on the next workpaper update.	Rejected	Not applicable to SCG.	Other	SDG&E will consider adding additional measure properties and will collaborate with PG&E, the statewide lead, on future workpaper updates in an effort to better represent the pumping conditions/water requirements.

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		workpaper updates, in addition to updating the parameters noted above.	forms for estimated pump runtime, the acreage of the field to be served by the pump, the crop being served, irrigation end-point type (drip, sprinkler, flood), OPE, etc. The PAs should make use of those data to fine tune ex ante savings values to better represent the pumping conditions/water requirements. It might be possible, for example, to support crop-specific savings estimates and to better customize expected pump loads based on water requirement by crop, pump capacity and acreage.							
13	5		We recommend that the PAs consider using an enhanced deemed measure savings algorithm that provides for some reasonable level of customization for relevant input parameters. Based on observations during this evaluation, we believe that irrigation pumps are better suited as a quasi-prescriptive (partially-deemed) measure rather than a fully deemed measure. The diversity of sample points and results suggests that irrigated fields, and the VFDs that serve them, are unique to each farm, but nonetheless trends may be leveraged that can lead to more accurate savings claims. To that effect, crop-specific irrigation requirements, for example, could be used to better characterize and differentiate the measure savings algorithms. Continuing to use a database of legacy ex ante pump VFD results will likely continue to misrepresent realized program savings.	PG&E, SCG and SDG&E	Accepted	A well designed deemed measure with the appropriate eligibility and exclusions criteria can still work for these types of measures. However, we're open to the suggestion of a hybrid program and had proposed this approach to other stakeholders in the past. We think this is a good opportunity to test this new approach	Rejected	Not applicable to SCG.	Other	SDG&E will collaborate with PG&E, the statewide lead, on future workpaper updates.
14	5	Across both the PG&E and SCE samples (45 pumps), there were only 2 pumps where evaluation-based EUL assignments matched those applied by the PAs in the tracking system. The utilities are failing to properly set EUL values to 1/3 of the EUL of an appropriate pump description from DEER for retrofit add-on projects (where the RUL of the pump informs the EUL of the VFD measure, based on host equipment policy). The PAs are also not successfully differentiating EULs	The PAs should apply greater due diligence in populating tracking system-based EULs and better classify participating projects as new pump installations versus retrofit add-on installations. The utilities EUL estimates demonstrate some level of confusion surrounding proper us of DEER database resources.	PG&E, SCG and SDG&E	Accepted	PG&E's program limits the MAT to NC to avoid confusion. As part of program eligibility, client needs to provide a receipt for a new motor in order to receive incentives	Rejected	Not applicable to SCG.	Other	SDG&E will collaborate with PG&E, the statewide lead, on future workpaper updates that better classify projects.

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		based on the pumps being new, where application of a 10-year EUL is appropriate.								
15	5	The agricultural drip irrigation measure is no longer offered through Pacific Gas and Electric (PG&E) programs. PG&E gradually altered the measure's eligibility requirements to accommodate specific irrigation technologies and crop types for which low-pressure irrigation was not yet a standard practice. By sunsetting the final eligible technology—drip tape irrigation at farms growing field vegetables—PG&E has deemed low-pressure irrigation to be standard practice throughout northern California.	We recommend that the agricultural irrigation realization rates and NTGRs presented in this evaluation report should not be applied prospectively to other agricultural irrigation measures. The drip irrigation measure was uniquely conducive to downstream distribution at scale. As a result, its gross and net performance does not serve as a reliable proxy for other agricultural measures such as irrigation pump upgrades.	PG&E	Rejected	PG&E does not have any other irrigation program or measure besides the drip irrigation that has been retired.				
16	5	The PA models for estimating savings were found to lack key parameters critical for accurately characterizing irrigation needs and resulting savings. These gaps generally led to a reduction in our evaluated savings relative to the PA reported savings. For example, almost all of the 19 evaluated drip irrigation projects were a unique combination of the following parameters which were not considered in the PAs' reported savings calculation: pre-project crop type, pre-project irrigation method, and post-project crop type. Each of these parameters can significantly affect irrigation requirements and subsequent savings from drip irrigation installations. Therefore, because the PAs' reported savings did not consider these factors, the savings values were inaccurate and generally overstated.	Should the drip irrigation measure reemerge, we recommend that future deemed savings estimates claims should be derived using evaluation data and results. The PAs should leverage findings from previous evaluations to refine model inputs and assumptions, correct errors and omissions, and otherwise improve the accuracy of reported savings for drip irrigation technologies. This will ensure better alignment between reported savings and evaluation-based savings results.	PG&E	Accepted	Future measures, if any, should have a different baseline as technology has improved significantly over the last few years. Water shortage seen in the last few years provides an opportunity to look at this measure to help conserve water. We believe there are a few crops that may be able to use drip irrigation to conserve water and energy				
17	5	The PA reported savings overstated how long the equipment will last following installation. PG&E assumes the equipment will last 20 years based on the	While the evaluated drip irrigation measure is no longer offered by PG&E, we recommend for future measures that involve drip irrigation or similar upgrades that useful life estimates should reflect the expected life of the	PG&E	Accepted	Future measures should include the irrigation systems as a whole to capture energy and water savings.				

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		default value considered for agricultural irrigation pumps. We found that the drip irrigation equipment are often replaced more frequently than the pumps to conserve both water and energy.	program-installed irrigation emitters, not the associated irrigation pump.							
18	5	For many of the tankless water heaters evaluated, program tracking data did not provide sufficient information. For approximately 45% of projects in the population, we did not have sufficient participant contact data to verify water heater installations or evaluate savings. As a result, we expanded our evaluation recruitment pool and ultimately exceeded the target sample count. We are encouraged by the slight improvement in recent tracking data quality as compared to our previous experiences.	We recommend that the PAs require participating distributors and partnering contractors to collaboratively collect and submit basic information for each customer ultimately receiving the equipment or other program support. As noted above, this appears to be most challenging to accomplish for installed equipment that are delivered by the programs through retail or other equipment supplier sources, in contrast with equipment that are installed directly by contractors and should therefore be an area of focus for implementing this recommendation. This basic information is critical for the PAs, the CPUC, and its contractors to verify installations and maintain the integrity of ratepayer incentive dollars.	PG&E and SCG	Accepted	We are pleased by the positive trend, albeit slight, in efforts to improve tracking of customer installations through participating distributors. As of the writing of these comments, this measure has become part of the statewide midstream water heating program which will now be administered by DNVGL Energy Services with lead PA SoCal Gas.	Accepted	SoCalGas has just begun offering the tankless water heating measure in its downstream program and requires that all customer installation site information be provided for verification. Additionally, regarding the midstream programs, the requirement for end-use customer data is not relevant as the purpose of midstream programs is to support the upselling and stocking practices of energy efficient measures through a midstream distributor. Distributor information is collected and reported as a requirement of the program.		
19	5	We determined that 9 of the 51 evaluated projects either never saved energy or no longer save energy. Three claimed projects occurred at facilities that have since permanently closed, and six projects were claimed at service addresses that had no evidence of recent tankless water heater installations. These projects resulted in zero savings and significantly reduced overall realized program savings.	We recommend that programs should require participating distributors and partnering contractors to submit more comprehensive installation documentation (e.g., invoices, commissioning reports) and photographs to prove measure installation, quantity, size, fuel source, and efficiency. This appears to be most challenging to accomplish for installed equipment that are delivered by the programs through retail or other equipment supplier sources, in contrast with equipment that are installed directly by contractors, and should therefore be an area of focus for implementing this recommendation.	PG&E and SCG	Accepted	As of this date, the statewide water heating program which will be administered by DNVGL Energy Services with lead PA SoCal Gas have addressed this challenge in their Implementation Plan in section 4, Measurement and Verification and Appendix C which diagrams elements of QC in the program. As stated by the IP, rate of PA sampling will be at the discretion of SoCal Gas.	Rejected	As stated above, the goal of midstream programs is to support the stocking and selling of energy efficient measures, not track end use customer data.		
20	5	Twenty-nine of the 51 evaluated projects applied incorrect per-unit savings values or misclassified the type of facility in which the measure was installed. Correcting these errors resulted in slightly lower estimated savings.	We recommend that the PAs' redouble efforts to ensure that reported savings estimates are based on the correct application of per-unit deemed savings values. We attribute these observed errors to the following: erroneous application of the wrong result, or misspecification of the facility type, cli-	PG&E and SCG	Accepted	As of this date, the statewide water heating program which will be administered by DNVGL Energy Services with lead PA SoCal Gas have addressed this challenge in their Implementation Plan in section 4, Measurement and Verification and Appendix C which diagrams elements of QC in the program. As stated by the IP, rate of PA sampling	Accepted	Assuming that this information is in related to downstream participation and not midstream, SoCalGas will ensure that applications submitted for review and approval, will properly track and capture all pertinent information to ensure accurate reporting of installed measures.		

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			mate zone, water heater size, or efficiency tier.			will be at the discretion of SoCal Gas.				
21	5	We found that water heaters operated at different temperatures than assumed in the applicable workpapers, which negatively affected the savings estimates. However, we also found that the installed water heaters were rated at higher efficiencies than assumed. Overall, the positive effects from increased efficiency outweighed the negative effects due to operating temperatures, resulting in an overall increase in savings.	We recommend that future workpaper revisions incorporate recent evaluation results when available. This will ensure better alignment between reported savings and evaluation-based savings. We note that the evaluated DHW temperatures presented in Table 5-36 include five cases of closed-loop systems that reduced the TWH's change in temperature. These five points should be excluded from prospective workpaper values if the programs screen out ineligible closed-loop systems as intended.	PG&E and SCG	Accepted	As of this date, the statewide water heating program which will be administered by DNVGL Energy Services with lead PA SoCal Gas have addressed this challenge in their Implementation Plan in section 4, Measurement and Verification and Appendix C which diagrams elements of QC in the program. As stated by the IP, rate of PA sampling will be at the discretion of SoCal Gas.	Other	Efficiency has been raised in the newest workpaper as the weighted average of all AHRI water heaters UEF in each efficiency bin. This results in a UEF values higher than the minimum qualifying criteria. We use the CPUC approved DEER water heater calculator for the source of our savings. We will work with commission staff to address concerns regarding setpoint temperature in subsequent workpaper updates. The workpaper assumes no tank or loop losses (whether closed or open loop system). It only takes into account the makeup water temperature rise to satisfy the demand, so the closed loop systems would have more savings. Although the return water temperature would be higher for closed loop systems, the tankless water heater would be operating a lot more to keep the system up to temperature.		