PUBLIC UTILITIES COMMISSION
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Date: July 23, 2019

To: Southern California Gas Company (SoCalGas)

From: Peter Biermayer, California Public Utilities Commission

Cc: R.12-01-005 and R.13-11-005 Service Lists

Subject: Mid-Year Feedback – 2019 Efficiency Savings and Performance Incentive (ESPI) Expected Savings Review

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Table of Contents

Pursuant to Decision (D).13-09-023, D.15-10-028 and D.16-08-019, the California Public Utilities Commission (CPUC) Staff and consultants are providing mid-year feedback on the program administrators' (PAs') activities producing expected (aka) savings estimates in the January 1 through June 30, 2019, timeframe (the review period). The mid-year feedback focuses on specific issues and concerns with the expected savings estimates of custom projects[1] and workpapers.[2] This feedback will help the PAs address these issues for the remainder of the year.

I. CPUC Staff Findings on 2019 Expected Savings Activities

The following sections provide a description of the findings, including areas of achievement and areas requiring improvement.

A. Custom Projects Review Overview

The CPUC selected a new contractor to assist the Staff with the custom projects expected savings review and expects to commence review activity in the third quarter of 2019. No custom projects were selected for expected savings review in the first two quarters of 2019, so there is no custom project feedback at this time.

B. Deemed Workpapers Review Overview

1. Summary of 2019 Mid-year Achievements

For the 2019 mid-year review, the CPUC Staff observed improvements in SoCalGas's development and management of workpaper submissions in the following areas:

- SoCalGas, in collaboration with the other PAs, has managed the revision and/or development of a high volume of workpapers during the review period. The CPUC commends SoCalGas's leadership in making this submission cycle successful and timely for gas measures.
- SoCalGas has demonstrated effective workpaper leadership, managing the submissions for more complex measures including food services, smart communicating thermostat gas savings, and pool covers.
- SoCalGas has been active in considering new measures.

2. Summary of Areas of Improvement

The Staff highlights the following recommendations for improvement:

- SoCalGas, in collaboration with the other PAs, should plan workpaper updates holistically, with research activities coordinated across workpapers of the same end-use.
- SoCalGas, in collaboration with the other PAs, should identify disruptive issues earlier and propose methods for their orderly resolution.

[1] Custom projects are energy efficiency efforts for which the customer financial incentive and expected energy savings estimates are determined using site-specific analysis of the customer's facility. See D.13-09-023, Section 7.4.

[2] "Deemed" measures are individual energy efficiency measures with predetermined, or "deemed," savings estimates. They represent all portfolio savings from programs other than custom projects or codes & standards advocacy programs.

- Workpaper plans should include detailed schedules and they should allocate adequate subject matter expert review time and adequate stakeholder notification.

II. DISCUSSION

A. Custom Projects Expected Savings Review Discussion

As stated in Section I, no custom projects were reviewed in the first two quarters of 2019.

B. Deemed Workpapers Expected Savings Review Discussion

SoCalGas submitted thirty-nine workpapers in the first half of 2019, of which twenty-five were statewide workpapers through mid-June. SoCalGas is also the lead for three workpapers in development with workpaper plans. This high volume is due to workpaper revisions in response to the 2018 DEER Update Resolution E-4952 update and the consolidation of PA-specific workpapers into single statewide workpapers.

The comments below are organized by the five scoring metric areas created in D.16-08-019.[3] The narrative includes observations common to multiple workpapers and feedback related to the workpaper development process. Specific workpaper feedback is provided in tables in Attachment A, at the end of this document. The Workpaper Detailed Review Table provides feedback on specific workpapers. The Workpaper Submissions Table lists all workpapers submitted by SoCalGas during the review period. Workpapers that were led by SoCalGas and were either disposed or reached approval status during the review period were selected for feedback. The Staff acknowledges that workpaper development may have been supported by multiple PAs; however, at the time of this mid-year review, there is no mechanism for apportioning feedback among PAs. Therefore, feedback is only provided for the submitting PA, with the assumption that they are the lead PA.

1. Timing and Timeliness of Submittals

SoCalGas has met deadlines for submission of statewide workpapers in the review period, which was an accomplishment considering the volume of workpaper submissions and the challenges of the consolidation process. There are, however, improvements that can be made in this metric.

Large numbers of scheduled workpapers were submitted just in time to meet a deadline. The Staff and consultants would appreciate it if SoCalGas distributed submissions over several weeks before the deadline, rather than as a single batch right at the deadline. SoCalGas submitted the majority of the 2019 Phase 1 in the last few days of 2018. The 2020 Phase 1 workpapers were usually submitted in a batch at the end of the month.

The Staff has appreciated the quality of recent workpaper plan submissions. However, the Staff and consultants expect that workpaper plans will include at least a target workpaper submission date early in the development cycle. As the development cycle advances, the schedule should become more detailed with itemized tasks, interim deliverables, and Staff review milestones with projected due dates. A detailed workplan schedule allows the Staff to monitor the progress of the workpaper development and to schedule subject matter expert to review deliverables. The Food Services workpaper plan includes a schedule that can be used as a template for future workpaper plan detailed schedules.

[3] See D.16-08-019 at 87.

The Staff requests that the PA joint Work Paper Plan required by D.15-10-028, and typically submitted in October, include all planned workpaper submissions, including Phase 2, resubmitted Phase 2, and PA adoption workpapers, as well as 2020 Phase 1 workpapers.

2. Content, Completeness, and Quality of Submittals

The content, completeness, and quality of workpapers has generally met standards. From the Staff perspective, the consolidation process has gone well, considering the volume of workpapers, the coordination that has been required, and the difficulties acquiring all the reference building prototypes.

PAs have an important responsibility to identify new technologies and delivery methods, and to develop workpapers where a deemed option makes sense. SoCalGas has three workpapers in workpaper plan development stage. The CPUC encourages the continued development of new measure workpapers to ensure innovative measures. SoCalGas has been actively engaged in exploring potential measures and has discussed the universal audit tool, residential pipe-wrap (submitted), residential oven, a green fan, and Wi-Fi-enabled heater controls with Staff and consultants. While not all candidates will end up as deemed measures, Staff appreciates the initiative and discussions. However, Staff expects workpaper plans early in the development cycle of any new measures before they are submitted.

The CPUC encourages planning workpaper updates more comprehensively and by end-use, borrowing elements from the workpaper consolidation planning. Planning by end-use (such as lighting or refrigeration) provides an opportunity to leverage research activities across multiple measures and workpapers. The CPUC notes that the catalog of potential areas of improvement by end-use is also very useful and should be continuously updated as issues arise.

Rather than single workpaper or workpaper parameter updates, the CPUC encourages comprehensive updates by workpaper groupings, like the in-progress update of five food services workpapers. The plan for updating these five workpapers includes standard practice research, equipment testing, customer surveys, hours of operation measurements, and updated compilation of product characteristics. Updating the uncertain and impactful parameters means these workpapers should not require updating again for a significant period. The CPUC encourages a proposal from the PAs for updating workpapers grouped by end-use spaced over a multi-year time horizon.

Workpapers are focused on defining well-supported savings and cost estimates, but measures are delivered in a program and regulatory context that is not described in the workpaper. The Staff finds it useful to hear PA views on program and regulatory issues and encourages briefing when appropriate. As an example, the SoCalGas smart communicating thermostat program manager described to the Staff and consultants the measure's role in multiple co-offerings with other PA programs. Also, SoCalGas presented to the Staff and consultants a data-rich analysis of workpaper trends and their potential impact on the portfolio savings and cost-effectiveness. Both presentations were excellent, and the CPUC encourages similar communication of thoughtful and data-rich program and regulatory perspectives on important issues.

3. Proactive Initiative of Collaboration

The CPUC recognizes that the consolidation of workpapers into single, statewide workpapers has required considerable coordination and collaboration between the PAs, and the PAs are to be commended.

SoCalGas has provided the Staff with updates and preliminary work products on upcoming workpapers via the workpaper plan process. For example, SoCalGas has arranged for a number of conference calls with the smart communicating thermostat subject matter expert consultant and the firm hired to conduct the natural gas savings analysis. SoCalGas also collaborated with the other PAs and the Staff to present a Third Party Workpaper Q&A webinar on April 11, 2019.

4. PA's Due Diligence and Quality Assurance/Quality Control Effectiveness

Of the thirty-nine workpapers submitted, SoCalGas was the lead for the thirty-eight workpapers listed in the submitted table in Attachment A, at the end of this document. Leading this workpaper development taxes PA resources, and the CPUC acknowledges and commends PAs taking on this work. SoCalGas has provided leadership in the review period. The Staff and consultants have regularly and productively engaged with SoCalGas and have come to rely on them to provide answers for the natural gas measure workpapers. Staff and consultants commend SoCalGas on the ambition of the research and the management of the food services workpapers.

The Staff expects that the PAs manage workpaper development well, including the submission of a workpaper plan and schedule early in the development process, as noted in Section 1, and that the schedules are managed to meet deadlines. SoCalGas has three workpapers under development. All of them have workpaper plans, although two do not include schedules. The Staff also expects that the lead PA will coordinate with other PAs to ensure each submission is complete from the perspective of all PAs.

5. PA's Responsiveness to Needs for Process and Program Improvements

SoCalGas partnered with the Staff and other PAs to resolve common issues and implement process improvements. Examples of these include:

- Development of a solution for implementing the new measure application types (MAT).
- Implementation of workpaper cover page. All workpaper submissions from SoCalGas have included a complete cover page since its rollout.

While there have been some procedural improvements, PAs have been deficient in anticipating and acting to resolve looming issues, such as the MAT implementation and defining the workpaper references for the September Annual Budget Advice Letters. As a group, the PAs need to better manage potential problems by first articulating issues early and then developing an action plan to resolve them in an orderly fashion. The Staff requests that the monthly joint meeting include a standing agenda item to inventory upcoming issues and to begin formulating action plans to address them. The CPUC expects PAs to volunteer to take leads on high-priority issues.

The California Technical Forum (CalTF), who is consolidating measure workpapers, proposed eTRM,[4] new third-party contracting process, and implications of Resolution E-4939[5] all set the stage for rethinking workpaper processes. It is incumbent upon the PAs to provide their vision of what these processes might be, although other stakeholders will also have important input on the final processes. There has been limited progress on developing a communications plan that fully meets the needs of all stakeholders. The Staff will seek organized and thoughtful input on this

[4] The eTRM, or electronic Technical Reference Manual, is an online relational database intended to be a repository for all statewide deemed measures. The development was sponsored by PAs and managed by the California Technical Forum, known as CalTF.

[5] Resolution E-4939 sets forth principles for regular updates of measure baselines.

topic. SoCalGas's initiative in piloting a mechanism for stakeholders to formally log workpaper complaints is the kind of thinking the CPUC encourages.

The DEER team has requested that all DEER-related support questions be issued to DEERsupport@dnvgl.com . The Staff notes that compliance is good but seeks full compliance.

Questions or comments about the feedback or final scores should be directed to Peter Biermayer at Peter.Biermayer@cpuc.ca.gov . Note that pursuant to D.13-09-023, the Staff will schedule a conference call meeting with SoCalGas to discuss and answer clarifying questions from this memorandum.

ATTACHMENT A: WORKPAPER FEEDBACK

The table below lists workpaper submissions by ID number, revision number, and title. The qualitative scores shown will be combined into a single score in the final expected savings review performance memorandum. Each category's total score will be equally weighted in the final total score for the metric. The PA may refer to the individual dispositions for more detailed descriptions of the specific actions the Staff required for each workpaper.

The ESPI Metric Columns in the tables correspond to the metrics described below:

Metric #	Metric Description
1	Timing and timeliness of submittals
2	Content, completeness, and quality of submittals
3	Proactive initiative of collaboration
4	PA's due diligence and quality assurance/quality control effectiveness
5	PA's responsiveness to needs for process and program improvements

The qualitative scores are designated as follows:

+ indicates a positive (from midpoint) scoring impact on a metric.

- indicates a negative (from midpoint) scoring impact on a metric.

yes indicates a neutral (midpoint) scoring impact on a metric (meeting expectations).

no indicates that the review feedback is not applicable to a metric.

Workpaper Detailed Reviews: SCG				ESPI Metrics				
WP ID	**Rev**	**Title**	**Comments**	**1**	**2**	**3**	**4**	**5**
WPSCGREWH 180305A	0	MF Central boiler dual setpoint temp controller	New workpaper for MF dual setpoint. Review team requested clarification on existing pipe insulation buildings. These issues were discussed with SoCalGas, and the workpaper was revised and resubmitted.	yes	no	yes	yes	+
SWFS014	1	Comm Rack Oven-Gas	Disposition issued requiring revisions with resubmission by September 1, 2019, to facilitate the disposition review and approval cycle for 2020 implementation. Additional information and analysis are required to support the expected savings values in the statewide workpaper. The critical issues are: • Update equipment performance baseline and eligibility requirements • Ensure that calculations and assumptions align with Energy Star • Investigate and resolve measure tracking data This review will be replaced by the updated workplan.	yes	-	no	no	+
WPSCGNRCC 180529A	0	Undercounter Dishwasher	In this new workpaper, the review team noticed discrepancies between calculations and the text. These issues were discussed with SoCalGas, and the workpaper was revised and resubmitted.	yes	no	yes	yes	+
WPSCGREHC 180723A	0	Intermittent Pilot Light	New workpaper submittal. Review issued no comments. Workpaper was complete.	yes	yes	yes	yes	+
WPSCGREAP 090718A	0	Residential Ozone Laundry Retrofit	New workpaper submittal. Review issued no comments. Workpaper was complete.	yes	yes	yes	yes	+
WPSCGREHC 181220A	0	Gas Fireplace	New workpaper submittal. Review issued no comments. Workpaper was complete.	yes	yes	yes	yes	+
SWWH007	1	Storage Water Heater, Commercial	Negative: Costs were updated using the old costing report from Itron. It is preferable to use recent costing data research. Positive: Participated in conversations regarding revisions to water heater calculator and took the lead on gathering water heater input data.	yes	no	+	yes	+

Workpaper Detailed Reviews: SCG				ESPI Metrics				
WP ID	**Rev**	**Title**	**Comments**	**1**	**2**	**3**	**4**	**5**
SWWH013	1	Tankless Water Heater, Residential	Negative: Costs were updated using the old costing report from Itron. It is preferable to use recent costing data research. Positive: Participated in conversations regarding revisions to water heater calculator and took the lead on gathering water heater input data.	yes	no	+	yes	+
SWWH012	1	Storage Water Heater, Residential	Negative: Costs were updated using the old costing report from Itron. It is preferable to use recent costing data research. Positive: Participated in conversations regarding revisions to water heater calculator and took the lead on gathering water heater input data.	yes	no	+	yes	+

Workpaper Submissions			
WP ID	**Rev**	**Title**	**Lead or Adopt**
WPSCGREWH180305A	0	MF Central boiler dual setpoint temp controller	Lead
SWFS002	1	Comm Door-type Dishwasher	Lead
SWFS003	1	Comm Combi Oven	Lead
SWFS004	1	Comm Griddle	Lead
SWFS014	1	Comm Rack Oven-Gas	Lead
WPSCGNRCC180705	0	Commercial Underfired Broilers	Lead
WPSCGNRCC180529	0	Undercounter Dishwasher	Lead
WPSCGNRHC180524	0	Commercial Condensing Gas Furnace	Adopt
WPSCGREHC180723	0	Intermittent Pilot Light	Lead
SCGWP100310A	10	Deemed Program for Commercial Steam Traps	Lead
WPSCGREAP090718A	0	Residential Ozone Laundry Retrofit	Lead
WPSCGNRWH121113A	4	Low Flow Pre Rinse Spray Valves	Lead
WPSCGREHC181220A	0	Gas Fireplace	Lead
WPSCGWP110812A	5	Pipe Insulation	Lead
SWAP005	1	Ozone Laundry, Nonresidential	Lead
SWAP006	1	Dishwasher, Residential	Lead
SWFS013	1	Low-flow Pre-rinse Spray Valve	Lead
SWWH001	1	Faucet Aerator	Lead
SWWH002	1	Low-flow Showerhead, Residential	Lead
SWWH003	1	TSV with and without a Low-Flow Showerhead	Lead
SWWH019	1	Faucet Aerator, Commercial	Lead
SWWH004	1	Laminar Flow Restrictor, Commercial	Lead
SWWH020	1	Low-flow Showerhead, Commercial	Lead
SWWH023	1	Tub Spout Diverter, Residential	Lead
WPSCGREWH120919A	5	Tankless Water Heaters	Lead
WPSCGREWH180207A	1	Residential Small Storage Water Heaters	Lead
WPSCGNRWH120206B	8	Non-Res Tankless Water Heater	Lead
WPSCGNRWH120206A	11	Non-Res Storage Water Heater	Lead
SWWH006	1	Tankless Water Heater, Commercial	Lead
SWWH010	1	Boiler, Multifamily	Lead
SWWH007	1	Storage Water Heater, Commercial	Lead

Workpaper Submissions			
WP ID	**Rev**	**Title**	**Lead or Adopt**
SWWH013	1	Tankless Water Heater, Residential	Lead
SWWH012	1	Storage Water Heater, Residential	Lead
SWWH016	1	DHW Loop Temp Controller	Lead
SWWH015	1	Recirculation Pump Control, Multifamily	Lead
SWWH018	1	Hot Water Tank Insulation, Nonresidential	Lead
SWWH017	1	Hot Water Pipe Insulation, Nonresidential	Lead
SWWH021	1	Recirculation Pump Timer, Commercial	Lead
SWPR003	1	Steam Trap, Commercial	Lead