

State of California

Memorandum



Date: January 28 2018

To: Chan U Paek, SCG

CC: Henry Liu, PGE; Ed Reynoso, SDGE; Cassie Cuaresma, SCE

From: Peter Biermayer - Utilities Engineer, Industrial/ Agricultural Programs and Portfolio Forecasting Section, Energy Efficiency Branch, Energy Division, CPUC

Subject: Disposition Rejecting Southern California Gas Company's Energy Efficiency Pool Cover workpaper, **WPSCGNRWH150309A Revision 1**

1. Direction Summary

- Southern California Gas Company's (SCG) revised commercial pool covers workpaper **WPSCGNRWH150309A Revision 1 (Workpaper R1)** is rejected for retroactive application of savings claim for 2018 and is not approved for Program Year 2019.
- SCG can continue to claim 2018 and 2019 savings based on the existing workpaper **WPSCGNRWH150309A Revision 0 (Workpaper R0)**.
- **Existing workpaper - WPSCGNRWH150309A Revision 0 will expire on 12/31/2019.**
- Any future pool cover workpapers for Program Year 2020 and beyond must revise the program delivery to target pools without existing pool covers. A revised workpaper shall be based on a no-cover baseline, a default service installation rate of 1.0, and a default net-to-gross ratio (NTG) of 0.60. ¹ The revised workpaper should define the no-cover eligibility criteria and enforcement mechanisms.
- Pacific Gas & Electric (PGE) and San Diego Gas & Electric (SDGE) must revise their workpapers (PGE3PPR0109 Revision 1 and WPSDGENRWH1204 Revision 1) in a similar manner to ensure that their program effectively targets sites without pool covers in order to continue offering the measure after 12/31/2019.

¹ DEER defines default Installation rate equal to 1. The NTG accounts for free-ridership and is equal to net savings divided by gross savings.

2. Workpaper Summary

A recent ex post evaluation² and a survey of pool owners cited in the workpaper all indicate that a large majority of participants are replacing existing functional covers. The evaluation study strongly recommended that consideration be given to ending the pool cover program. Workpaper R1 is rejected because it revises the savings calculation baseline from a pool with a minimally efficient pool cover to a pool with no pool cover (increasing savings three to five times) yet provides no change in program eligibility requirements to ensure that participants do not have existing functional pool covers despite these evaluation findings. Without a change in program requirements that are enforced, based on the history of the program, most of the sites will continue to have a baseline of a pool with an existing pool cover.

3. Background

Workpaper R0. Workpaper R0 (March 2015) is a non-DEER workpaper, originally submitted in response to the 3/1/2013 disposition³ (“Previous Disposition”). The workpaper had no expiry date.

Previous Disposition. The Ex Ante Team determined that 72% of the participant pools already had a pool cover based on a visual confirmation of the existing conditions of the pools using historical Google maps photographs. The Previous Disposition also showed that the economics for pool covers was compelling with much less than a year payback in most scenarios and that if a pool cover became unusable, it would likely be replaced with a new pool cover even if a utility incentive was not offered. The Previous Disposition directed SCG to use an installation rate of 0.38 which combined the observed rate of pools without covers adjusted for the higher efficiency of the installed pool cover over a standard practice cover⁴.

Ex post evaluation findings. The ex post evaluation report on pool covers determined a low net realization rate⁵ of 0.11% (less than 1%). The study method included on-site and telephone surveys of 18 participant sites. The study determined that 67% had functional pool covers prior to replacement. Based on the ex post evaluation findings, the evaluators recommended that “**strong consideration should be given to no longer offer the commercial pool cover measure.**”

Telephone survey of pool owners. Workpaper R1 references a study sponsored by SCG in 2018⁶ which surveyed 168 participant and non-participant commercial customers with pools. The study characterized pool cover usage and purchasing practices for both participants and non-participants. Key findings of the study included that 57% of outdoor pools do not have covers, however, there are barriers to installation other than cost, such as continuous pool use. Replacing a failed pool cover is a high priority for 74% of the owners of pools with covers.

² “2015 Nonresidential Downstream ESPI Deemed Pool Cover Impact Evaluation”, prepared by Itron, March 31, 2017. The study addressed SCG sites only.

³ “Workpaper Disposition for Commercial Pool Covers,” CPUC ED, March 1, 2013.

⁴ The SCG installation rate of 0.38 was based on the observed number of sites with existing pool covers and the insulation value of the cover. The Installation rate was calculated by dividing the weighted savings for all cases where a pool cover was not previously installed by the total savings for all claims. This definition of installation rate is specific to this workpaper.

⁵ The net realization rate is the ratio of the ex post net (evaluated estimated) to the ex ante (deemed program claimed) savings.

⁶ PowerPoint presentation entitled: “Commercial Pool Study, Customer Insights & Analytics”, 5/17/2018.

Google maps verification of frequency of pool covers. Workpaper R1 references a second study sponsored by SCG in 2018 to determine the number of outdoor pools with and without covers to its service territory using Google Earth Pro. The study found a higher rate of outdoor pools with covers (60-70%) compared to the telephone survey (43%). However, there are a significant number of pools without covers in the service territory.

Workpaper R1 revisions. Workpaper R1 incorporates information from the telephone surveys and google map studies described above. There is no change due to new codes or standards, as pool covers are still required by code for new installations. Workpaper R1 includes the following proposed key revisions affecting savings:

- Revises the baseline from a pool with a pool cover to a pool without a pool cover, but with no change in program eligibility requirements – therefore, incentives would continue to be offered to participants that already have a pool cover.
- Revises the installation rate from 0.38 prescribed in the Previous Disposition to 1.0, the DEER default installation rate.
- Revises the net-to-gross ratio from the DEER default NTGR of 0.60 to 0.23 using evidence from the population survey, as described below.

The workpaper does not provide arguments for why the no-cover baseline is appropriate or for the revision of the installation rate to 1.0. However, in a pre-submission discussion on November 16, 2018, SCG staff argued that the proposed lower net-to-gross ratio (from 0.60 to 0.23) addresses both free-ridership and the occurrence of pools with covers. Normally, the NTGR accounts for free-ridership only, but SCG proposed to include a further adjustment to the NTGR to account for the high frequency of program participation with pool covers.

PGE and SDGE pool cover workpapers. The baseline in both workpapers is a pool without a pool cover. The workpapers note that the target market pools are: “not covered or the current cover has reached the end of its useful life and is no longer effective.” The SDGE workpaper provides additional detail on what constitutes failure, however the online application has no requirements regarding the state of an existing cover. The SDGE and PGE programs’ target market and eligibility requirements are functionally identical to SCG’s.

4. Discussion

The following sections summarize ex-ante review and conclusions.

4.1. Measure Baseline

Only pools without existing covers should be eligible to receive energy efficiency incentives. PAs intending to offer a pool cover measure after 12/31/2019 must submit a workpaper with a no cover measure baseline and revise program eligibility requirements to ensure that incentives are offered only to pools without an existing cover. New pools are not eligible for incentives because are required by code to have pool covers.

The baseline in Workpaper R0 is a pool with a pool cover. SCG in, Workpaper R1, changed the baseline to a pool without a pool cover but still allows rebates to those sites that already have a pool cover. The workpaper does not make an effective argument for revising the baseline. The evidence of the ex post evaluation and SCG’s own studies lead Staff to the following conclusions:

- Pool owners typically already have a pool cover if there no inherent barriers to that installation (such as the pool is used continuously, or the pool is indoors). The payback economics are compelling for replacing a failed cover, with a payback of less than a year in most scenarios. Rarely is cost a barrier to installation of a pool cover (only 5% of responders in the 2018 population telephone survey study cited cost as a barrier).
- If the pool cover is in poor condition, it gets replaced (78% of responders report it is a high priority to replace non-working cover for). Only 14% of current owners with covers cite cost as a potential barrier to replacement. In addition, even a degraded pool cover offers significant energy reductions compared to a no-pool cover baseline.
- The ex post evaluation found that 78% percent of participant pools had pool covers previously, which was close to the 72% findings of the Ex Ante Team in 2013. Of the 22% that did not have pool covers, half were ineligible (the pool was not heated, or the pool was new). Only 11% of the existing covers were considered failed by the participants.

The program has not effectively recruited owners without pool covers to participate in the program; therefore, it is not appropriate to define the baseline (which should characterize the typical participant) as without a pool cover. Since there are no revisions to program implementation, there is no reason to conclude that the program will shift to installing covers at pools that do not already have covers. Without a change in program implementation, there is also no reason to expect a future ex post impact evaluation to show a net realization rate greater than the last result of 0.11%.

4.2. NTGR and Installation Rate

A future pool cover workpaper shall utilize the default net-to-gross rate of 0.60 and a default installation rate of 1.0

The Previous Disposition and Workpaper R1 adjusted the default NTGR and installation rate to account for high rates of pools with existing covers. A future workpaper must include adequate eligibility requirements and enforcement mechanisms to ensure participants do not have an existing pool cover. This allows the installation rate and NTGR to the DEER default values of 1.0 and 0.60, respectively.

5. Direction

SCG is directed to continue the use of the Workpaper R0 through 12/31/2019 at which time it will expire. PGE and SDGE are directed to continue to use workpapers PGE3PPR0109 Revision 1 and WPSDGENRWH1204 Revision 1, respectively, through 12/31/2019 at which time they will expire.

In order to claim pool cover measures after 12/31/2019, SCG and any other PA offering a pool cover measure, must revise program delivery to only target pools without existing pool covers and revise the pool cover workpaper accordingly. The program eligibility requirements should be designed to ensure compliance. The revised workpaper shall be based on a no-pool cover baseline, a default service installation rate of 1.0, and a default net-to-gross rate of 0.60.

The PAs are directed to immediately (i.e., within 5 business days) inform all implementors and contractors that are currently, or potentially could be, offering a pool cover program that the measure rebate will expire as of 12/31/2019.