

**PUBLIC UTILITIES COMMISSION**

505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3298



Date: July 30, 2020

To: Pacific Gas and Electric (PG&E)

From: Peter Lai and Peter Biermayer, California Public Utilities Commission (CPUC)

Cc: R.13-11-005 Service Lists

Subject: MID-YEAR FEEDBACK - 2020 EFFICIENCY SAVINGS AND PERFORMANCE INCENTIVE (ESPI) PERFORMANCE

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Pursuant to Decision (D).13-09-023, D.15-10-028 and D.16-08-019, California Public Utilities Commission (CPUC) Staff and consultants are providing the 2020 Efficiency Savings and Performance Incentive (ESPI) Performance Mid-year Feedback on the investor-owned utilities (IOUs) respective activities as of June 30, 2020. The mid-year feedback focuses on specific accomplishments and issues or concerns identified as part of ongoing workpaper<sup>1</sup> and custom<sup>2</sup> project reviews. This feedback will help the IOUs address these issues for the remaining year.

## I. CPUC Staff Findings 2020 Mid-year Activities Feedback

The following sections of this memorandum provide a description of the findings, including areas of achievement and areas requiring improvement for both custom projects and workpapers review activities.

### A. Custom Projects Review Overview

#### 1. Summary of 2020 Mid-year Achievements

This feedback is based on 83 CPUC project review dispositions issued between January and June 2020. PG&E continues to demonstrate efforts to improve its performance. CPUC Staff's observations include:

- **Improvements in M&V plan compliance.** The number of deficiencies with M&V plans dropped significantly compared to 2019 projects. PG&E has demonstrated improvements in reducing the number of measures and projects with M&V compliance issues.
- **Improvements in Program Influence Documentation.** The fraction of documentation issues regarding program influence remains low in 2020. PG&E continues to make progress in improving their program influence documentation.
- **Issues related to Net Impacts remains low.** Similar to 2019 where one issue was reported, there has also been only one issue related to net savings impacts in the first half of 2020, demonstrating that PG&E continues to improve documentation related to program influence and using correct NTG values.

#### 2. Summary of Areas Requiring Improvement

Areas that were most problematic, frequent, and/or are in need of improvement include:

- **The number of issues regarding gross savings impacts increased.** In the second half of 2019, there were 21 actions required by the PA to correct deficiencies (30 percent of total

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<sup>1</sup> A workpaper documents the data, methodologies, and rationale used to develop values for deemed measures. A workpaper is prepared and submitted by program administrators and approved by the CPUC.

<sup>2</sup> A custom project requires project site specific impact calculations due to a unique characteristic of the measure and/or operation of the measure.

actions) that impacted gross savings. In the first six months of 2020 there have been 29 actions (40 percent of total actions) that impact gross savings. PG&E must make significant efforts to perform quality control to uncover issues prior to submitting for review.

- **Documentation discrepancy continues to be an issue.** Data exchange between Third Party implementers and PG&E is still problematic. On several projects the estimated efficiency savings in the bimonthly projects lists submitted for CPUC staff review selection do not match the estimated efficiency savings in the project documentation. PG&E must finalize a data exchange protocol that improves the reporting and tracking of savings from Third Party programs before the final 2020 ESPI scoring.

## B. Workpapers Review Overview

### 1. Summary of 2020 Mid-Year Achievements

PG&E continues to demonstrate efforts to improve its performance. CPUC Staff observed improvements in PG&E's development and management of workpaper submissions in the following areas:

- **PG&E provided leadership** managing the submissions for or making significant contributions to more complex measures including linear lighting and the behavioral workpaper for Home Energy Report.
- **PG&E provided leadership** in prioritizing measures for industry standard practice (ISP) research on behalf of all PAs.

### 2. Summary of Areas of Improvement

CPUC Staff highlights the following recommendations for improvement which are centered on the quality of workpaper submissions:

- PG&E is still struggling with the quality of the workpaper submissions. PG&E workpapers had errors and inconsistencies between the workpaper narrative and the workpaper Ex Ante Data (EAD) tables<sup>3</sup>, errors in reference values, and omissions.

## II. Discussion

The following sections of this memorandum provide a detailed description of the findings, including, areas of achievement and areas requiring improvement for both custom projects and workpapers.

### A. Custom Projects Performance Review

Each year, CPUC Staff reviews a selected sample of custom project energy efficiency program

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<sup>3</sup> The EAD tables document the assumptions and for each measure included in the workpaper.

applications. The review findings and directions to the IOUs are presented in documents referred to as “dispositions”. This feedback is based on 83 CPUC project review dispositions issued between January and June 2020.

The comments below are organized by the five metric areas prescribed in D.16-08-019. No scores are provided for these metrics in the mid-year memo. All feedback provided at this time is qualitative.

## **1. Timeliness of Submittals**

PG&E generally complied with Public Utilities Code 381.2 (Senate Bill 1131) guidelines however CPUC staff noted six projects that were uploaded past the 15 business days requirement. Projects that were submitted on time were uploaded early, which indicates PG&E is making efforts to comply with CPUC requirements under this metric.

## **2. Content, Completeness, and Quality of Submissions**

Out of the 83 project dispositions issued in the first 6 months of 2020, projects had several deficiencies including Savings By Design Program modeling issues and submitting incorrect versions of the PG&E’s Modified Lighting Calculator. These deficiencies could result in a loss of ESPI points under this metric. CPUC staff also found that similar to the last half of 2019, projects in 2020 continued to show deficiencies such as failed fuel substitution tests, projects not authorized to proceed prior to implementation, and projects where non-IOU Energy sources were not accounted for. Due to these impacts on gross savings estimates each of these deficiencies can result in a significant loss of ESPI points for that project. PG&E must work to correct these issues that have continued to persist since the last half of 2019 to avoid significant loss of ESPI points under this metric.

PG&E continues to improve in the area of process, policy and program rules with fewer issues in the first 6 months of 2020 related to EULs/RULs and preponderance of evidence documentation on accelerated replacement (AR) projects compared to the second half of 2019. CPUC staff found 1 instance of incomplete documentation of program influence which can result in a significant deduction of ESPI points for this metric. PG&E also had 1 project in 2019 with this deficiency indicating that they are continuing to make efforts to correctly establish influence through documentation submissions. Table 1 below summarizes the 73 action items identified across 83 dispositions issued between January 1, 2020 and June 30, 2020.

Table 1: Summary of Categorized Action Items for Custom Projects

Issue Area	Action Categories	Summary of CPUC Staff		Total	Percent of Total
		Required Action by the PA:	Summary of CPUC Staff Notes or Instructions:		
Issues Related to Gross Savings Impacts	Analysis assumptions	20	9	29	71%
	Calculation method	7	2	9	22%
	Calculation tool	0	1	1	2%
	M&V plan	2	0	2	5%
	<b>Subtotals</b>	<b>29</b>	<b>12</b>	<b>41</b>	<b>39%</b>
Process, Policy, Program Rules	Baseline	1	1	2	6%
	CPUC Policy	1	0	1	3%
	Eligibility	4	0	4	13%
	ER preponderance of evidence	0	1	1	3%
	EUL/RUL	12	4	16	50%
	Fuel switching	1	0	1	3%
	Incentive calculation	2	0	2	6%
	Measure cost	1	1	2	6%
	Measure type	2	0	2	6%
	PA program rules	1	0	1	3%
<b>Subtotals</b>	<b>25</b>	<b>7</b>	<b>32</b>	<b>30%</b>	
Documentation Issues	Missing documents	2	3	5	45%
	Missing required information	4	1	5	45%
	Project scope unclear	1	0	1	9%
	<b>Subtotals</b>	<b>7</b>	<b>4</b>	<b>11</b>	<b>10%</b>
Issues Related to Net Impacts	NTG	0	1	1	33%
	Program influence	1	1	2	67%
	<b>Subtotals</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>3%</b>
Other Issues	Other 1 - Discrepancy between project documentation and bimonthly upload	6	1	7	37%
	Other 3 - SPB > EUL	0	2	2	11%
	Other 4 - Documentation Discrepancy	4	5	9	47%
	Other 5 - Installation Verification	1	0	1	5%
	<b>Subtotals</b>	<b>11</b>	<b>8</b>	<b>19</b>	<b>18%</b>
	<b>Grand Total</b>	<b>73</b>	<b>33</b>	<b>106</b>	<b>100%</b>

### **3. Proactive Initiative of Collaboration**

Commission Staff found that PG&E made efforts to bring measures, projects, or studies forward for discussion prior to review. In addition, they continue to take an active and engaged role in statewide collaboration efforts.

### **4. PA's Due Diligence, Quality Assurance, and Quality Control (QA/QC)**

Project and measure level disposition performance results reviewed under Metric 2 are used as a proxy for the level of QA/QC occurring by the PA. As noted above, PG&E has increased the number of deficiencies in the first 6 months of 2020 compared to the second half of 2019, showing a decrease in the effectiveness of QC processes. Additionally, the number of dispositions proceeding without exception is weighed against those requiring resubmissions or resulting in rejections. Out of the 83 dispositions issued from January 2020 – June 2020, 41 projects (49 percent) proceeded without exception, 35 projects (42 percent) were allowed to proceed with exceptions as noted, and 7 projects (8 percent) were rejected. Comparatively in 2019 PG&E had 4 rejections, (7 percent) 15 out of 56 (27 percent) proceed without exception, and 37 projects (66 percent) proceed with exceptions as noted. While 8 percent is a slight increase in the number of rejections compared to 7 percent in the last half of 2019, the increase in the percent of applications that were ready to proceed without exception is significant (49 percent in 2020 compared to 27 percent in 2019). This demonstrates that PG&E is improving the quality of submissions overall as more are passing without exceptions in the first 6 months of 2020 compared with submissions in the second half of 2019.

### **5. PA's Responsiveness**

CPUC Staff assessed the time series of rejections and expectations, the alignment of program policy and procedures with the number of actual rejections and exceptions based on eligibility and attribution, and the adaption to changes in rules over time. For dispositions issued in the first six months of 2020 CPUC Staff found that projects did not exhibit a trend in terms of project performance over time (i.e. project submissions had the same number of issues when submitted later in 2020 compared to earlier in the year). This demonstrates that PG&E is not making significant efforts to improve project submissions that are in line with CPUC policy and that a similar number of rejections and applications proceeding with exceptions may continue for the remainder of 2020. This would result in a lower than expected performance for this ESPI metric at the end of 2020.

## **B. Workpapers Performance Review**

PG&E had eight workpapers disposed in the first half of 2020 that were not previously scored. PG&E also has one additional workpaper currently in CPUC review and is the lead for two workpapers in the workpaper plan development stage.

The comments below are organized by the five scoring metric areas created in D.16-08-019. The narrative includes observations common to multiple workpapers and feedback related to the workpaper development process as well as direction for future workpapers.

Specific workpaper feedback is provided in tables in Attachment A, at the end of this document. The first table, the Workpaper Detailed Review Table provides feedback on specific workpapers. The second table, the Workpaper Submissions Table lists all workpapers submitted by PG&E during the review period. The Staff acknowledges that workpaper development may have been supported by multiple PAs; however, at the time of this mid-year review, feedback is directed to the submitting PA, with the assumption that they have led the development.

## **1. Timeliness of Submittals**

PG&E has met deadlines for submission of workpapers and other deliverables in the review period.

CPUC staff expects PG&E to communicate interim deliverable, workpaper submission and re-submissions to the CPUC staff and consultant Workpaper Review Team in a timely fashion through the monthly Workpaper Submittal Plan or through workpaper plan updates. Workpaper submission dates should be accurately forecasted out one month in advance of the submission and any workpaper submitted either before or after the forecasted date in this report will impact the ESPI score for this metric. Occasionally, the CPUC staff will request PG&E to modify its planned submission schedule to levelized workloads during periods of heavy submissions.

## **2. Content, Completeness, and Quality of Submissions**

PG&E's workpaper content and completeness has generally met or exceeded standards in the first half of the year except for one workpaper. Workpapers should clearly articulate the proposed methods and include step-by-step methods or procedure descriptions. The PAs proposed approach should provide accurate results for the population addressed by the measure. All relevant related or past activities and submittals (previous workpapers, dispositions, etc.) should be appropriately disclosed or discussed. The commercial Tankless Water Heater workpaper did not meet this standard as it initially did not include measures that required an extension and referenced incorrect DEER values.

Four of the workpapers required substantial effort with original research or the synthesize of newly available research. Most notable was the Home Energy Report which established a template for procedural workpapers. The CPUC staff consultant subject matter expert and the PG&E staff worked closely to develop the template. The Commercial Tankless Water Heater workpaper failed to include all the expected measures and it incorrectly referenced DEER values. The remaining three workpapers did not require significant technical revisions and met expectations for content.

PAs have an important responsibility to identify new technologies and delivery methods, and to develop workpapers where a deemed option makes sense. PG&E has two workpapers in the workpaper plan development stage for variable frequency drives for Baghouse Fan > 50HP and Duct Retrofit in Mobile Homes workpapers. The CPUC encourages the continued development of new measure workpapers to ensure innovative measures.

CPUC staff appreciates PG&E's systematic organization and technical expertise in prioritizing measures for industry standard practice (ISP) research. PG&E developed a basis for prioritizing research in compliance with E4939. PG&E is expected to complete one or more ISP study this year.

### **3. Proactive Initiative of Collaboration**

PG&E is expected to engage with CPUC staff in early discussions on unique or high profile, high impact measures before program commitments. Where a workpaper plan is warranted, a workpaper plan should be used as a vehicle for managing the CPUC staff engagement.

PG&E proactively and productively engaged CPUC staff prior to workpaper submission for four of the workpapers reviewed in this cycle, two of which included workpaper workplans PG&E used good judgement in its level of engagement with CPUC staff.

### **4. PA's Due Diligence, Quality Assurance, and Quality Control (QA/QC)**

PG&E had serious lapse in quality control in the reviewed and scored workpapers which will negatively impact ESPI scores in this metric. All but two of the workpapers had significant errors, including inconsistencies between narrative and EAD table values, DEER reference errors, and poorly written narratives. CPUC staff recommends that PG&E conduct a root cause analysis of the errors in its submission process and revamp the process accordingly to reduce submission quality errors to zero or near zero. On a positive note, PG&E spaced the submission of the workpapers across the first half of the years, leveling workloads.

PG&E is expected to fully QC workpapers and other interim deliverable documents before submitting them, including those of their contractors. The Ex Ante Data (EAD) tables and narrative should be consistent and free of errors. The workpaper should be submitted following submission protocols for location within Workpaper Archive (WPA) in the website [www.deeresources.info](http://www.deeresources.info) and attachments, such as the workpaper coversheet.

CPUC Staff expects that the PG&E will 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. CPUC Staff also expects that when PG&E leads a workpaper, they will coordinate with other PAs to ensure each statewide submission is complete from the perspective of all PAs. PG&E is on track for meeting expectations for managing workpaper submission schedules and coordinating with other PAs.

### **5. PA's Responsiveness**

This metric reflects PG&E's leadership in the continuous improvement of programs through the introduction of new workpapers, proactively identifying workpapers that have dated elements, and nominating irrelevant workpapers for sunseting. It also reflects PG&E's ongoing efforts to improve their internal processes and procedures.

PG&E led four workpapers with significant work content. The Home Energy Report work resulted in a template for a procedural workpaper, which prescribes methods and procedures for triuing up ex ante savings methods using ex post billing analysis. Two of the workpapers expanded the application of the measure to new building types and a fourth consolidated individual PA values to a single



value within a climate zone. These efforts required coordinating across PAs and/or working closely with the CPUC staff subject matter expert. PG&E has also shown leadership in its organization of the PA ISP research effort.

PG&E internal procedures, however, could be improved to ensure the submitted workpaper are free of errors. PG&E's submission in the first half of the year were particularly problematic with inconsistencies between the narrative and EAD tables and incorrect identification codes, which multiple submissions to resolve. CPUC staff recommends that PG&E conduct a root cause analysis of the errors in its submission process and revamp the process accordingly.

### **III. Attachments**

[Attachment A](#) contains the workpaper summary tables showing the qualitative components for each metric. Each reviewed workpaper was first determined to have components either applicable or not applicable to a metric. If an item was determined to have activity applicable to a metric, the item was then assigned a qualitative rating as to the level of due diligence applied to the item as either deficient (or “-“), apparent but minimal (or “yes”), or superior (or “+”).

Questions or comments about the feedback should be directed to Peter Lai ([peter.lai@cpuc.ca.gov](mailto:peter.lai@cpuc.ca.gov)). Note that pursuant to D.13-09-023, CPUC Staff will schedule a teleconference meeting with PG&E staff to discuss and answer clarifying questions of this memorandum.

## Attachment A: Workpaper Feedback

The table below lists the ID numbers associated with each workpaper submission or disposition and the workpaper review process scoring area. The PA may refer to the individual dispositions for more detailed descriptions of the specific actions staff required for each workpaper. The qualitative ESPI scoring feedbacks are designated as follows:

‘+’ indicates a positive (from midpoint) scoring impact on a metric, receives 100%,

‘-’ indicates a negative (from midpoint) scoring impact on a metric, receives a 0%

‘Yes’ indicates meeting expectation; neutral (midpoint) scoring impact on a metric, receives a 50%,

‘No’ indicates the review feedback is not applicable to a metric and has no impact on the score.

Workpaper Reviews				ESPI Metrics				
WP ID	Rev	Title	Comments	1	2	3	4	5
SWHC014	1	Unitary Air-Cooled Ac Or Heat Pump, < 65 kBtuh, Commercial	Phase 1 2020 consolidated workpaper submitted on time and addressed CPUC comments in a timely manner. Workpaper lacking QC and needed multiple editorial corrections: WP errors in measure case specification table, incorrect energy impact ID codes, and errors in measure data specification workbook (data spec tab) and EAD table.	+	yes	yes	-	yes
SWWB004	1	Home Energy Reports	Phase 1 2020 consolidated workpaper submitted on time. PG&E worked collaboratively with the CPUC SME and brought a high degree of leadership and skill to developing a new workpaper type (procedural workpaper). Specific to Metric 4, positive. This workpaper established a working template for a procedural workpaper, which required collaboration between CPUC and PGE staff. PGE had a skilled lead, which facilitated a successful conclusion. Specific to Metric 4, negative. The initial narrative was unclear and required multiple iterations before it was acceptable.	+	+	+	yes	+
SWCR018	2	Reach-In Refrigerator Or Freezer, Commercial	Phase 1 2020 consolidated workpaper submitted on time and addressed CPUC comments in a timely manner. Workpaper lacking QC and needed multiple editorial corrections: incorrect source description in EAD table and DataSpec sheet. Also, PA had to upload corrected versions with revised "LastMod" date.	+	yes	yes	-	yes
SWLG011	2	LED High or Low Bay	Phase 2 2020 workpaper to convert measure offering impacts from IOU rolled up values to individual climate zones. Showed initiative in collaborating with other IOUs. However, workpaper lacked QC and needed multiple editorial corrections: errors in EAD tables/reference.	+	+	+	-	+

SWHC018	2	Variable Speed Drive for HVAC Fan Controls	Phase 2 2020 workpaper to add building type Grocery (Gro) by eQuest modelling. Showed research initiative to include Grocery building types with engagement of CPUC through a workpaper plan. Workpaper quality control was good.	+	+	+	+	yes
SWHC023	2	Enhanced Ventilation For Packaged HVAC	Phase 2 2020 workpaper to add building type Grocery (Gro) by eQuest modelling. Showed research initiative to include Grocery building types with engagement of CPUC through a workpaper plan. Workpaper quality control was good.	+	+	+	+	yes
SWHC009	2	Supply Fan Controls, Commercial	Phase 1 2020 consolidated workpaper submitted on time and addressed CPUC comments in a timely manner. Workpaper lacking QC and needed multiple editorial corrections compounded with miscommunicated.	+	yes	yes	-	yes
SWWH006	2	Tankless Water Heater, Commercial	Phase 1 2020 consolidated workpaper. Workpaper did not clearly state the intent of adding water heater types and did not include extension of agreed upon measures nor were the correct DEER values used. QC was lacking: EAD tables needed to be resubmitted. DEER values were not correct in workpaper.	+	-	yes	-	yes

## Workpaper Submissions

SWHC014	1	Unitary Air-Cooled Ac Or Heat Pump, < 65 kBtuh, Commercial	Detailed review complete
SWWB004	1	Home Energy Reports	Detailed review complete. Disposition and cover sheet issued.
SWCR018	2	Reach-In Refrigerator Or Freezer, Commercial	Detailed review complete
SWLG011	2	LED High or Low Bay	Detailed review complete
SWHC018	2	Variable Speed Drive for HVAC Fan Controls	Detailed review complete. Disposition and cover sheet issued.
SWHC023	2	Enhanced Ventilation For Packaged HVAC	Detailed review complete. Disposition and cover sheet issued.
SWHC009	2	Supply Fan Controls, Commercial	Detailed review complete
SWWH006	2	Tankless Water Heater, Commercial	Detailed review complete