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Date: March 30, 2020 (revised June 22, 2020)

To: Southern California Gas (SoCalGas)

From: Peter Lai and Peter Biermayer, California Public Utilities Commission (CPUC)
Cc: R.12-01-005 and R.13-11-005 Service Lists

Subject: 2019 EFFICIENCY SAVINGS AND PERFORMANCE INCENTIVE (ESPI) PERFORMANCE SCORES

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I. Summary of 2019 ESPI Scores - Custom Projects and Workpapers

Pursuant to Decision (D).13-09-023, D.15-10-028 and D.16-08-019, California Public Utilities CPUC (CPUC) Staff and consultants score the investor owned utilities (IOUs) based on their performance during the pre-approval phase (or "ex ante" phase) of developing an energy efficiency project or measure. This performance score is a component of the annual Efficiency Savings and Performance Incentive (ESPI) awarded to each utility. CPUC Staff and consultants completed the 2019 ESPI performance review scoring as prescribed in Table 3 of D.16-08-019. Decision D.16-08-019 established consolidated metrics to evaluate and further direct the utilities. Ordering Paragraph 19 of this decision states that the ESPI scores "shall be weighted for the utility program administrators based on the proportion of deemed savings and custom measures in each utility's portfolio". The scores contained in this memo are final, and Southern California Gas (SoCalGas) shall use the total final performance points from the table below together with the weighting[1] for each category to calculate the 2019 ESPI performance review component award.

A breakdown of SoCalGas' 2019 ESPI performance score of ~~71.83~~72.46/100 for workpapers[2] and custom projects is shown below in Table 1. SoCalGas' 2019 total points is an increase over its 2018 total points of 56.18. Scores for 2018 are provided in Table 2 on the following page.

Table 1: SoCalGas 2019 ESPI Scoring for Workpapers and Custom Projects

SoCalGas 2019 ESPI Review Performance Scores and Points		Workpapers				Custom			
Metric	Metric Area of Scoring	Metric Score	Metric Weight Factor	Points	Max Points	Metric Score	Metric Weight Factor	Points	Max Points
1	Timing and Timeliness of Submittals	2.50	10%	2.50	5	5.00	10%	5.00	5
2	Content, Completeness, and Quality of Submittals	5.00	30%	15.00	15	2.33	30%	7.00	15
3	Proactive Initiative of Collaboration	5.00	10%	4	5	1.00	10%	1.00	5
4	Due Diligence and QA/QC Effectiveness	4.06	25%	10.14	12.5	3.50	25%	8.75	12.5
5	Responsiveness to Needs for Process/Program Improvements	3.48	25%	8.70	12.5	~~3.5~~3.75	25%	~~8.75~~9.38	12.5
Total				41.33	50			~~30.50~~31.13	50

[1] D.16-08-019 Ordering Paragraph 19 specifies that "Energy Savings Performance Incentive scores shall be weighted for the utility program administrators based on the proportion of deemed savings and custom measures in each utility's portfolio." Therefore, the final score cannot be determined until the utilities have submitted and CPUC Staff has compiled their final 2018 savings claims and published for each utility the weights for the custom and deemed categories.
[2] A workpaper documents the data, methodologies, and rational used to develop values for deemed measures. A workpaper is prepared and submitted by program administrators and approved by the CPUC.

Table 2: SoCalGas 2018 ESPI Scoring for Workpapers and Custom Projects

SoCalGas 2018 ESPI Review Performance Scores and Points		Workpapers				Custom			
Metric	Metric Area of Scoring	Metric Score	Metric Weight Factor	Points	Max Points	Metric Score	Metric Weight Factor	Points	Max Points
1	Timing and Timeliness of Submittals	1.52	10%	1.52	5	2.00	10%	2.00	5
2	Content, Completeness, and Quality of Submittals	1.07	30%	3.21	15	2.00	30%	6.00	15
3	Proactive Initiative of Collaboration	4.38	10%	4.38	5	3.44	10%	3.44	5
4	Due Diligence and QA/QC Effectiveness	1.88	25%	4.69	12.5	3.00	25%	7.50	12.5
5	Responsiveness to Needs for Process/Program Improvements	4.38	25%	10.94	12.5	5.00	25%	12.50	12.5
Total				**24.73**	**50**			**31.45**	**50**

The metric scoring area descriptions are expanded in Attachment A. The final category scores are explained in more detail below as well as in Attachment B through Attachment D to this memo. As required by the ESPI decision D.13-09-023, the relative weighting of performance during custom project development versus workpaper (or "deemed"[3]) development of the performance component of the ESPI will be published by CPUC Staff in June 2020 after reviewing the utilities' final 2019 savings claims to be filed on May 1, 2020.

II. CPUC Staff Findings 2019 Activities

A. Custom Projects Review Overview

1. Summary of 2019 Achievements

In 2019, CPUC Staff selected no new custom projects for review in the first half of the year due to delays in the procurement of a review contractor. Project review activities were resumed in July of 2019. From the period beginning July 2019 to the end of December 2019, SoCalGas submitted nine custom projects to CPUC Staff for review selection. CPUC Staff selected eight of these projects for review and issued three custom project dispositions and no review waivers.[4] The remaining five SoCalGas projects selected for review in 2019 were reviewed and had dispositions issued in early 2020 due to the timing of their selection.[5] A review of the project dispositions and the Review Process Score Enhancements points resulted in SoCalGas' custom project score decreasing by ~~0.95~~0.32 points over 2018 scores (31.45 in 2018 vs. ~~30.50~~31.13 in 2019 as shown in Tables 1 and 2 above). Despite this slight reduction in score, it is also clear that SoCalGas continues to endeavor to make improvements. CPUC Staff's observations include:

[3] Deemed are a set of predetermined savings values for efficiency measures that are developed from commonly accepted data sources and analytical methods.
[4] Review waivers are issued where CPUC Staff have not conducted an in-depth review of all of the submitted project documentation. CPUC staff neither approves nor disapproves any aspects of this project. The project application is directed to proceed without further CPUC Staff review.
[5] Projects selected by CPUC Staff at the end of 2019 were reviewed and disposed in early 2020 and therefore are not included in the 2019 performance scoring.

- **SoCalGas continues to improve its processes for determining eligible projects and improving documentation**. Projects were submitted well before the due date, indicating SoCalGas' processes are reducing the time for custom projects to be submitted with appropriate documentation. Although only three projects were reviewed, project reviews found only one issue relating to eligibility.

2. Summary of Areas Requiring Improvement

Although only 3 projects were reviewed in 2019, several issues were identified that should be addressed in future submittals:

- SoCalGas must consider all non-IOU energy sources as part of project submission. One industrial process project (CPUC Project ID 287) required increased electricity consumption to drive the process which should be included in the project feasibility, review and simple payback analysis.
- Projects with savings based on normalized metered energy consumption analysis (NMEC) should include a specification of the baseline model and list the required goodness of fit metrics as defined in the CPUC NMEC Rulebook.

B. Workpapers Review Overview

1. Summary of 2019 Achievements

SoCalGas's workpapers scores have increased compared to last year by 16.60 points (from 24.73 in 2018 to 41.33 as shown in Tables 1 and 2 above). SoCalGas continues to demonstrate efforts to improve its performance. CPUC Staff observed improvements in SoCalGas's development and management of workpaper submissions in the following areas:

- **Successful transition to statewide workpapers**. SoCalGas, in collaboration with the other program administrators (PA), has managed the revision and/or development of a high volume of workpapers during the review period. CPUC Staff acknowledges SoCalGas's role in making this submission cycle successful and timely.
- **Effective workpaper leadership**. SoCalGas has demonstrated effective workpaper leadership, managing the submissions for more complex measures including food services, smart communicating thermostat, and pool covers.
- **Measure development**. SoCalGas has been active in considering and developing new measures, including behavioral measures.

2. Summary of Areas of Improvement

CPUC Staff highlights the following recommendations for improvement which are centered on improved planning:

- 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.

- SoCalGas should keep CPUC Staff informed of all workpaper development through workpaper plans with detailed schedules which are updated in a timely manner as development process evolves.

III. Discussion

The following sections of this memorandum provide a detailed description of the findings, including, areas of achievement, areas requiring improvement and scoring 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 applications. The review findings and directions to the program administrators (PA) are presented in documents referred to as "dispositions". CPUC Staff acknowledges that prior to July of 2019 project applications were not always selected at random, rather selected based upon the type of projects that had past issues or projects where the CPUC expected to find deficiencies for various reasons. Projects were also selected to determine whether a utility has corrected issues from similar projects that CPUC Staff reviews identified in the past, e.g., Savings by Design projects using the EnergyPro software.

In 2019, CPUC Staff selected no new custom projects for review in the first half of the year due to delays in our procurement of a review contractor. Project review activities were resumed in July of 2019. From the period beginning July 2019 to the end of December 2019, CPUC Staff selected eight SoCalGas projects for review; of those, three received dispositions and none received a review waiver. The remaining five projects were issued in early 2020 due to the timing at which they were selected. The comments below are organized by the five metric areas of scoring prescribed in D.16-08-019 with metric scores shown prior to any enhancement points. A summary table of all submitted dispositions is included in Attachment B. ~~Attachment B~~~~Attachment C: Workpaper Scores and Feedback~~Attachment D contains an embedded custom scores workbook that includes a tab with details on the individual project level disposition scores and feedback from the reviewer.

Table 3 below presents the custom disposition points given to SoCalGas for each metric both with and without the addition of any Enhancement Points.

Table 3: SoCalGas Custom Disposition Points Awarded by Metric

Metric	Metric Area of Scoring	Weight Factor	Custom Disposition Points		Max Points
			With Enhance Pts	w/o Enhance Pts	
1	Timeliness of Submittals	10%	5.00	5.00	5
2	Content, Completeness, and Quality of Submittals	30%	7.00	7.00	15
3	Proactive Initiative of Collaboration	10%	1.00	1.00	5
4	PA's Due Diligence and QA/QC	25%	8.75	7.50	12.5
5	PA's Responsiveness	25%	~~8.75~~9.38	~~7.50~~8.13	12.5
Total			**~~30.50~~31.13**	**~~28.00~~28.63**	**50**

1. Timeliness of Submittals

In 2019, SoCalGas received a custom disposition score of 5.0 out of 5.0 for Metric 1 (Timeliness of Submittals) prior to the addition of any enhancement points. This disposition score was based on the three SoCalGas custom projects reviews completed in 2019. For all three of these custom projects reviewed all project documents were submitted on time and more than a week earlier than required per timeline mandated in Senate Bill (SB) 1131 and Section 381.2 of the Public Utilities Code.[6]

2. Content, Completeness, and Quality of Submissions (7.0 out of 15.0)

In 2019, SoCalGas received a custom disposition score of 7.0 out of 15.0 for Metric 2 (Content, Completeness and Quality of Submissions) prior to the addition of any enhancement points. Our review found SoCalGas had one project that contained no errors deemed critical to the completeness of the submittal, but two projects that had critical errors which resulted in a significant loss of points under this metric.

Table 4 summarizes the five action items identified across three dispositions issued between July 1, 2019 and December 31, 2019.

Table 4: Summary of Categorized Action Items for Custom Projects

Issue Area	Action Categories	Summary of CPUC Staff Required Action by the PA:	Summary of CPUC Staff Notes or Instructions:	Total	Percent of Total
Issues Related to Gross Savings Impacts	Calculation method	3	0	3	75%
	M&V plan	1	0	1	25%
	Subtotals	**4**	**0**	**4**	**80%**
Process, Policy, Program Rules	Fuel switching	1	0	1	100%
	Subtotals	**1**	**0**	**1**	**20%**
	Grand Total	**5**	**0**	**5**	**100%**

Specific examples of project and measure level deficiencies are provided below.

- **Fuel Substitution Test Failed** occurred on two projects (CPUC Project IDs 246 and 287) and due to the importance of this test these projects received the minimum ESPI points under this metric.
- **Non-IOU Energy Source not Accounted for** occurred on one project (CPUC Project ID 287) which resulted in significant ESPI point reductions for this metric due to the importance of accounting for all energy sources included in the project.
- **Missing savings calculations, lack of clarity with methodology, and incorrect measure application type** occurred at the measure level on one project (CPUC Project ID 287) and resulted in a deduction of ESPI points related to this metric.

[6] "The electrical corporation or gas corporation shall make the project application supporting documentation available to the CPUC for review within 15 business days of the CPUC review selection date".

3. Proactive Initiative of Collaboration

In 2019, SoCalGas received a custom disposition score of 1.0 out of 5.0 for Metric 3 (Proactive Initiative of Collaboration) prior to the addition of any enhancement points. At the portfolio level, SoCalGas did not appear to make a significant effort to bring measures, projects, or studies forward for discussion prior to CPUC Staff review. Additionally, topics reviewed during bi-weekly calls with CPUC Staff were below what was expected to demonstrate proactive collaboration. As such CPUC Staff felt SoCalGas performed below the minimum expectations with regards to proactive collaboration under this metric.

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

In 2019, SoCalGas received a custom disposition score of 7.5 out of 12.5 for Metric 4 (PA's Due Diligence, Quality Assurance, and Quality Control) prior to the addition of any enhancement points. Project and measure level disposition performance results reviewed under Metric 2 were used as a proxy for the level of QA/QC occurring by the PA. As such, the number of dispositions proceeding without exception was weighed against those that required resubmissions or resulted in rejections. Of the projects reviewed, 1 project (33 percent) proceeded without exception, 1 project (33 percent) was allowed to proceed with exceptions and 1 project (33 percent) required resubmittal. This resulted in lower than expected performance for this metric as it pertains to effective QC of projects prior to submitting for review.

CPUC Staff also looked at what procedure documents were in place and found that SoCalGas had the required checks in place. SoCalGas demonstrated compliance with this metric by providing evidence in uploads that PA staff had reviewed the document and performed QC. CPUC Staff also noted that four of the five comments we made on projects were related to gross savings impacts and were therefore below what is expected in terms of QC. Overall CPUC Staff believes SoCalGas made efforts to meet CPUC minimum expectations for this metric, however updates to QC practices that result in no rejections and fewer issues related to gross savings would be beneficial to improving this score in the future.

5. PA's Responsiveness

In 2019, SoCalGas received a custom disposition score of ~~7.5~~ 8.13 out of 12.5 for Metric 5 (PA's Responsiveness) prior to the addition of any enhancement points. When reviewed at the portfolio level, 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. CPUC Staff had three projects to review and observed that performance appeared to ~~deteriorate~~ improve from the first submission to the third submission (i.e. project submissions had ~~more~~ fewer issues when submitted later in 2019 compared to earlier in the year). Although this assessment is made on the three projects reviewed, CPUC Staff felt the improvement of project submissions should be relatively constant over time, which demonstrates ~~worse~~ better than expected performance on this metric. CPUC Staff will continue to track and monitor this time series moving forward.

B. Workpapers Performance Review

SoCalGas had 55 workpapers which were submitted or disposed in 2019, 47 of which were led by SoCalGas and the balance of which were adoptions[7] of previously approved workpapers or straightforward revisions of existing workpapers. 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.[8] 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 C, 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 were selected for feedback from those that were led by SoCalGas and were either disposed or reached approval status during the review period. CPUC Staff acknowledges that workpaper development may have been supported by multiple PAs; however, at this time, 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. The scoring rubric for workpapers is defined as follows:

'+' indicates a positive scoring impact which receives 100% of total points for the metric
'-' indicates a negative scoring impact which receives 0% of total points for the metric
'Yes' indicates meeting minimum expectation which receives 50% of total points for the metric
'No' indicates the review feedback is not applicable to a metric and does not impact the average

The assigned percentage scores were averaged across all the reviewed items.

Table 5 below presents the workpaper disposition points given to SoCalGas for each metric both with and without the addition of any enhancement points.

Table 5: SoCalGas Workpaper Disposition Points Awarded by Metric

Metric	Metric Area of Scoring	Weight Factor	Workpaper Disposition Points		Max Points
			With Enhance Pts	w/o Enhance Pts	
1	Timeliness of Submittals	10%	2.50	2.50	5
2	Content, Completeness, and Quality of Submittals	30%	15.00	7.83	15
3	Proactive Initiative of Collaboration	10%	5.00	2.50	5
4	PA's Due Diligence and QA/QC	25%	10.14	5.97	12.5
5	PA's Responsiveness	25%	8.70	8.70	12.5
Total			**41.33**	**27.50**	**50**

[7] An adoption is a short form submission referencing another PA's previously approved workpaper without any revisions in content or values, except for necessary PA related measure identification codes.
[8] See D.16-08-019 at 87.

1. Timeliness of Submittals

In 2019, SoCalGas received a workpaper disposition score of 2.50 out of 5.0 for Metric 1 (Timeliness of Submittals) prior to the addition of any enhancement points. SoCalGas has largely met deadlines for submission of statewide workpapers in the review period and all workpapers received a Yes, indicating that the minimum expectations were met for timeliness.

SoCalGas submitted three workpaper plans, where one plan covered five foodservices workpapers. This foodservice workplan had a very detailed schedule which helped CPUC Staff to anticipate deliverables. CPUC 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 CPUC Staff review milestones with projected due dates. We expect the SoCalGas to provide timely updates of schedule changes. CPUC 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,[9] resubmitted Phase 2, and PA adoption workpapers, as well as 2020 Phase 1 workpapers. The PAs complied and submitted a Work Paper Plan in October and SoCalGas did not submit any unplanned workpapers through the end of 2019.

2. Content, Completeness, and Quality of Submissions

In 2019, SoCalGas received a workpaper disposition score of 7.83 out of 15.0 for Metric 2 (Content, Completeness and Quality of Submissions) prior to the addition of any enhancement points. The content, completeness, and quality of workpapers has generally met standards. From the CPUC Staff perspective, the consolidation process went well, considering the volume of workpapers, the coordination that has been required, and the difficulties acquiring all the reference building prototypes.

SoCalGas submitted many workpapers, of which 18 required complex development, such as the food service, boiler, and hot water measure workpapers. The foodservice workpapers involved multiple research tasks and required synthesizing disparate data sources. The scope of work had also been expanded from what was strictly required via disposition direction. However, some SoCalGas workpapers included content deficiencies (such as the reliance on a questionable savings factor in the steam cooker workpaper and the incorrect reference flowrate used in showerhead calculations). SoCalGas averaged a 52 percent of the direct work product points for this metric, slightly exceeding expectations for workpaper content.

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

[9] Phase 2 workpapers are for new measures or revisions to workpapers that are not submitted in response to the DEER Resolution.

CPUC Staff 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. CPUC Staff 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, CPUC Staff encourages comprehensive updates by workpaper groupings, like the 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. CPUC Staff 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. CPUC Staff finds it useful to hear SoCalGas's views on program and market impacts of workpapers. As an example, the SoCalGas smart communicating thermostat program manager described to CPUC Staff and consultants the measure's role in multiple co-offerings with other PA programs. This presentation was excellent, and CPUC Staff encourages communication of how workpaper revisions impact the market. CPUC Staff expect regular updates of market conditions related to workpapers in the regularly scheduled meetings.

3. Proactive Initiative of Collaboration

In 2019, SoCalGas received a workpaper disposition score of 2.50 out of 5.0 for Metric 3 (Proactive Initiative of Collaboration) prior to the addition of any enhancement points. Workpapers met the minimum expectations of collaboration which was required to ensure each workpaper met all PA's needs, therefore all workpapers received a "Yes". CPUC Staff recognizes that the consolidation of workpapers into single, statewide workpapers has required considerable coordination and collaboration between the PAs, and SoCalGas is to be commended and has been further recognized in the Process Adder Score.

SoCalGas has provided the CPUC 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 was the lead but collaborated with the other PAs and the CPUC Staff to present a Third Party Workpaper Q&A webinar on April 11.

4. PA's Due Diligence, Quality Assurance, and Quality Control

In 2019, SoCalGas received a workpaper disposition score of 5.97 out of 12.5 for Metric 4 (PA's Due Diligence, Quality Assurance, and Quality Control) prior to the addition of any enhancement points.

The quality of SoCalGas workpapers was usually acceptable. However, there were cases where the workpapers were submitted with quality control deficiencies that resulted in lower scores. For

example, the gravity wall furnace did not reference the correct net-to-gross values and there were inconsistencies between the data tables and the narrative of the high-efficiency furnace workpaper. SoCalGas averaged 48 percent of the direct work product points for this metric, slightly falling short of expectations for workpaper quality control.

CPUC 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 had three workpaper plans encompassing seven workpapers under development including residential cooking oven, steam boiler economizer, and residential water heater pipe wrap. CPUC Staff also expects that when SoCalGas leads a workpaper, they will coordinate with other PAs to ensure each submission is complete from the perspective of all PAs.

5. PA's Responsiveness

In 2019, SoCalGas received a workpaper disposition score of 8.70 out of 12.5 for Metric 5 (PA's Responsiveness) prior to the addition of any enhancement points. Of the 57 workpapers submitted or disposed in 2019, SoCalGas was the lead for the 47 workpapers listed in the submitted table in Attachment C. Leading this workpaper development taxes PA resources, and CPUC Staff acknowledges and commends SoCalGas for taking on this work, particularly for the 18 more complex workpapers. SoCalGas has provided expert leadership in the development and review of workpapers. CPUC Staff and consultants have regularly and productively engaged with SoCalGas and have come to rely on them to provide answers for the gas measure workpapers. SoCalGas averaged 70 percent of the direct work product points for this metric, exceeding the minimum expectations for individual workpaper leadership.

SoCalGas collaborated with CPUC 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). Resolution E-4952 had redefined the codes for new application types and workpaper data tables had not been revised to accept them. The PAs worked together with CPUC Staff to develop a timely and efficient solution.
- 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, SoCalGas has, along with the PAs as a whole, 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. Although these issues were ultimately resolved, the schedule was more compressed than necessary. As a group, the PAs need to better manage potential problems, first by articulating issues early and then by developing action plans to resolve them in an orderly fashion. CPUC Staff requests that the monthly joint meeting includes a standing agenda item to inventory upcoming issues and to begin formulating action plans to address them. The CPUC expects SoCalGas to volunteer to take leads on high-priority issues.

The consolidated measure workpapers, new third-party contracting process, and implications of Resolution E-4939[10] all set the stage for rethinking workpaper processes. It is incumbent upon SoCalGas 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. CPUC Staff will seek organized and thoughtful input on this topic from SoCalGas.

IV. The Scoring Methodology

The 2019 performance score was developed using five detailed scoring metrics for each directly reviewed work product (i.e., workpaper and custom project), as well as a scoring of the utility's internal due diligence processes, QA/QC procedures and methods, as well as program implementation enhancements to support improved forecasted values.

Attachment A summarizes the Metrics adopted in D.16-08-019 as well as the CPUC Staff developed scores and points for 2019. D.16-08-019 also directed that the custom and workpaper scores be weighted together into a final score based on the IOU total claims for custom and deemed activities, respectively. The weights for custom and deemed scores will be developed and published by CPUC Staff in June 2020 based upon the IOUs final 2019 savings claims to be filed on May 1, 2020.

In accordance with D.13-09-023, the IOUs' activities are assessed against a set of five metrics on a rating scale of 1 to 5. Once activities are assessed, the ratings for each are converted onto this scale, where 1 is the lowest score assigned and 5 is the highest score assigned. A maximum score on all metrics for both workpapers and custom projects will yield 100 points whereas a minimum score on all metrics would yield 20 points. The 1 to 5 rating scale is distinguished as follows:

1. Consistent underperformer in meeting the basic expectations.
2. Makes a minimal effort to meet CPUC expectations but needs dramatic improvement.
3. Makes effort to meet CPUC expectations, however improvement is required.
4. Sometimes exceeds CPUC expectations while some improvement is expected.
5. Consistently exceeds CPUC expectations.

As with the 2018 performance scores, the final scores were "built-up" from a metric-by-metric assessment of each reviewed work product. It is CPUC Staff's expectation that this detailed scoring approach, along with the detailed qualitative workpaper and custom project level feedback, is consistent with the direction provided in D.13-09-023. We believe this scoring approach provides specific guidance to the utilities on how to improve their due diligence review and scores moving forward.

A "Direct Work Product Review" portion of each metric score was developed based upon the individual scoring of dispositions issued for custom project or workpapers. Each reviewed utility work product was first determined to have components either applicable or not applicable to a

[10] Resolution E-3949 sets forth principles for regular updates of measure baselines.

metric.[11] If a metric was determined to be not applicable to a given disposition, the metric was identified as not applicable ("N/A") and the metric was assigned a score equal to the average 1 to 5 score from the remaining applicable metrics. Assigning this average score to any "N/A" metrics essentially normalized the final score so that a disposition neither benefitted nor was penalized as a result of a non-applicable metric.

For workpapers, 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. The scoring rubric for workpapers is defined as follows:

'+' indicates a positive scoring impact which receives 100% of total points for the metric
'-' indicates a negative scoring impact which receives 0% of total points for the metric
'Yes' indicates meeting minimum expectation which receives 50% of total points for the metric
'No' indicates the review feedback is not applicable to a metric and does not impact the average

The assigned percentage scores were averaged across all the reviewed items. Individual workpaper level disposition scoring, as well as related workpaper activities, are provided in Attachment C. Note the following approach to scoring individual workpapers by metric:

- Metric 1 Timeliness: The workpaper submission schedule was designed to distribute the workpapers throughout the months leading up to August. This was accomplished, so all workpapers were assigned a "Yes".
- Metric 2 Content: Straightforward workpaper received a "Yes", complex revisions received a "+", unless there were errors in the content, which warranted a "-".
- Metric 3 Collaboration: Statewide consolidation required the expected collaboration between all parties, therefore all workpapers received a "Yes" in this metric.
- Metric 4 Quality Assurance: Workpapers that were complete, consistent, and without meaningful errors received a "Yes". Those workpapers with inconsistencies between the data tables and narrative or where values were left undefined received a "-" score. There were a few "+" scores assigned for workpapers with additional work products included that aided in the review of the workpaper.
- Metric 5 Process: Since workpaper development is an important task, the workpaper lead received a "Yes" for straightforward and "+" for complex workpaper submissions.

For custom projects, each applicable metric was directly scored according to the unique metric scoring methodology outlined below. A project by project summary of the custom project scoring is included in a custom tables workbook which has been included as an embedded excel file in Attachment D.

[11] For example, workpapers and custom projects which do not involve measures which in some way are expected to utilize DEER values, assumptions, or methods, in the development of new kWh, kW, and therm savings values would not receive scoring for Metric 2 ("Content, Completeness, and Quality of Submittals"). Another example would be a minor workpaper which may not require proactive collaboration with CPUC Staff and therefore not receive a score for Metric 3 ("Proactive Initiation of Collaboration").

A. Custom Metric 1 Scoring Methodology

This metric is related to the timeliness of submittals and a maximum of 5 points is allocated to this metric based on the PA's responsiveness to requests and follow-up documentation required to complete the review. Scoring for this metric occurs at the individual project review stage.

An allocation of 15 business days is given for the PA to submit materials following the date selected for review. PAs begin with a score of 5 and after 15 business days have passed, 1.0 point is deducted for each day the submittal is late.

B. Custom Metric 2 Scoring Methodology

This metric is related to content and completeness of submittals and a maximum of 15 points is allocated to this metric. Scoring occurs on each custom project during the individual project review stage. On a percentage basis Metric 2 is the single greatest determinant of the overall ESPI score. Scoring for Metric 2 is achieved through numerous areas throughout the custom project review workbook. PA's begin with a full score of 5 for each custom project in the review workbook with each noted deficiency reducing the points accordingly. Deficiencies are not weighted equally, with significant issues such as failure of the fuel substitution test or inadequate documentation of program influence receiving a heavier weighting compared to tests such as incorrect site location information. The scores from all custom projects are then averaged together to arrive at an average disposition score for Metric 2.

C. Custom Metric 3, 4 and 5 Scoring Methodology

Whereas Metrics 1 and 2 are assessed at the project level, Metrics 3, 4, and 5 are assessed at the portfolio level for each PA. As such, no individual custom project receives a unique score for these metrics. Additionally, unlike Metrics 1 and 2 which rely on deductions under each metric, scores for Metrics 3, 4, and 5 are awarded based on the PA's performance as it relates to the components of each metric.

For Metric 3, points are awarded when the PA proactively brought high impact or unique projects forward to CPUC Staff prior to developing a study or project, or if the CPUC Staff determined that an early opinion was not needed for a project. The final score for Metric 3 is therefore representative of the average performance of custom projects across the portfolio of projects.

Scoring for Metric 4 relies upon disposition results and findings identified under Metric 2 as well as the overall depth and correctness of the technical review team. The PA's performance on dispositions assist in serving as a proxy for quality control under Metric 4. In addition, several project specific elements such as whether changing market practices and updates to DEER were considered, or if a project demonstrated evidence of review activities are used to assess the scoring for this metric. Similar to Metric 3, a final score is representative of the average performance of custom projects across the portfolio of projects.

With Metric 5, a review of process enhancement tools and techniques, tracking improved disposition performance over time, and highlights provided throughout the year by the PA assist in determining an average score related to process and programmatic improvements. Similar to

Metrics 3 and 4, a final score is representative of the average performance of custom projects across the portfolio of projects.

D. Score Enhancement Methodology

The above process resulted in custom project and workpaper work product review scores. Next, utility-specific "Review Process Score Enhancements" were developed for each applicable metric based on observed policy and technical reviews or program implementation processes/procedures developed and implemented in 2019 in order to positively impact future project reviews. CPUC Staff believes it is important to provide ESPI "Enhancement" points for positive due diligence developments to recognize the effort and to provide additional encouragement even before a change in project-level results is observed.

In the custom scoring process CPUC Staff added "Enhancement" points in the area of Policy/Technical QA/QC for Metrics 4 and 5 to reflect SoCalGas staff's positive efforts in these metric areas as discussed earlier. Those initiatives included:

- Tracked reasons for cancelled projects including screening out projects that did not meet eligibility requirements. Though this is expected of PA's, staff sees this as an improvement from last year with regards to more detailed tracking of project decisions.
- Developed and implemented a new software module for custom program and Savings by Design. Staff recognized that this module is an improvement to SoCalGas' process and likely assisted in the PA submitted projects faster than required under SB 1131 for review.

Although these efforts may not yet be reflected in project specific disposition scores, CPUC Staff believes recognition of the efforts of SoCalGas' technical and policy review staff is warranted. These activities offer promise to improve SoCalGas' overall performance in the future.

Workpaper scores also include "Review Process Score Enhancements." Process issues represent critical deemed measure development topics where CPUC Staff believes improvement is needed or improvement has occurred, but those activities are not necessarily reflected in the areas of direct review. These activities, as discussed above, are noted in the narrative, but are summarized here by metric as:

- Metric 1: Timeliness: There were no adder points for this metric.
- Metric 2: Content. SoCalGas was acknowledged for its contributions to the development of the foodservice workpapers which included an expansion of the original scope and multiple research tasks.
- Metric 3: Collaboration: SoCalGas was acknowledged for the collaboration shown in the last year in the completion of the workpaper consolidation.
- Metric 4: Management: SoCalGas was acknowledged for its role in managing emerging issues such as the collaborative decisions on selecting workpapers to be used in ABAL reporting and the successful Q&A webinar.
- Metric 5: Process improvements: There were no adder points for this metric.

To produce the final workpaper scores, the metric scores for the two workpaper contributing areas were added together, using a 50 percent weight for the process issues score. The 50 percent weight given to the process review has the effect of being a "score enhancement" or increase to the direct review score. Furthermore, within each contributing area (direct and process review areas), CPUC Staff also assigned weights for individual items as a way to reflect greater importance of different individual review items. The separate process scoring provides an avenue for assessing overall QA/QC processes and procedures put into place by SoCalGas.[12]

Attachment D contains custom and workpaper summary tables showing the components and total scores and points for each metric in each of the two component areas of scoring described above.

Questions or comments about the feedback or final scores should be directed to Peter Lai (peter.lai@cpuc.ca.gov). Note that pursuant to D.13-09-023, CPUC Staff will schedule a meeting with SoCalGas staff to discuss this memorandum and its final scores by April 30, 2020.

[12] The guidance on scoring approach provided in D.13-09-023, at 74, provides that when only a small number of submissions are available for scoring and the submissions have varying impacts on the portfolio overall, that appropriate weighting should be allied to the submission and observed performance that should carry across multiple metrics. "Low scores for metrics that assess specific and important quantities (e.g., if the utility only uploads a small percentage of custom projects and receives a low score for Metric 1), will have a proportional impact on the total score the utility could receive for later metrics that measure the quality of custom project submittals." "For example, doing an outstanding job on a large number of very low-impact, standardized projects will not make up for doing a poor job on a few projects that represent a major portion of portfolio dollars."

Attachment A: Final ESPI Performance Scores (without Enhancement Points)

Metric		Workpapers				Custom			
		Max Points	Max Percent of Total Points	2019 Score	2019 Points	Max Points	Max Percent of Total Points	2019 Score	2019 Points
1	**Timing and Timeliness of Submittals** Timely submittals: all lists, inventories, plans, studies, workpapers and project/measure documentation; timing and advanced announcement of submittals (spreading out submission when available rather than holding and turning in large batches); timely follow-up IOU responses to review disposition action items including intention to submit/re-submit with proposed schedule.	5	10%	2.50	2.50	5	10%	5.00	5.00
2	**Content, Completeness, and Quality of Submittals** Completeness, appropriateness, comprehensiveness, accuracy, and clarity of submittals. Submittal adherence to CPUC policies, Decisions, and prior CPUC Staff dispositions and/or guidance. Do the submittals include all materials required to support the submittal proposed values, methods, and results? Is the project or measure clearly articulated? Are proposed or utilized methods clearly explained including step-by-step method or procedure descriptions. Will the proposed or utilized approach provide accurate results. Are all relevant related or past activities and submittals appropriately noted or disclosed, analyzed or discussed. Are the pros/cons of alternate possible approaches or conclusions discussed to support that the chosen one is most appropriate.	15	30%	2.61	7.63	15	30%	2.33	7.00
3	**Proactive Initiative of Collaboration** IOU efforts to bring either measures, projects, studies, questions, and/or savings calculation methods and tools to CPUC Staff for discussion in the early formative stages, before CPUC Staff review selection. In the case of tools, before widespread use in the programs. CPUC Staff expects collaboration among the IOUs to develop common or coordinated submissions and for the IOUs to undertake joint or coordinated planning activities and study work. The IOUs are expected to engage with CPUC Staff in early discussions on unique or high profile, high impact measures or projects before program or customer	5	10%	2.50	2.50	5	10%	1.00	1.00

	commitments are made. The IOUs are expected to engage with CPUC Staff on planning and execution of studies that support proposed offerings, tools, or determination of proposed baselines or other programmatic assumption that can impact ex ante values to be utilized.								
4	**Program Administrator's Due Diligence and Quality Assurance/Quality Control Effectiveness** CPUC Staff expects the IOU to have effective Quality Control (QC) and Quality Assurance (QA) processes for their programs and measures. The IOUs are expected to have a pro-active approach to reviewing existing measure and project assumptions, methods, and values and updating those to take into account changes in market offerings, standard practice, updates to DEER methods and assumptions, changes to codes, standards, and regulations, and other factors that warrant such updates. The depth and correctness of the IOU's technical review of their ex ante parameters and values, for both Core, Local Government and Third Party programs, are included under this metric. The depth and correctness of the IOU's technical review of their own staff and subcontractor work related to supporting deemed and custom measure and project submissions are included in this metric. Evidence of review activities is expected to be visible in submissions so that CPUC Staff can evaluate the effectiveness of the IOU internal QA/QC processes.	12.5	25%	2.39	5.97	12.5	25%	3.00	7.50
5	**Program Administrator's Responsiveness to Needs for Process and Program Improvements** This metric reflects the IOUs ongoing efforts to improve their internal processes and procedures resulting in increased ex post evaluated gross and net savings impacts. CPUC Staff looks not only to the IOU's internal QC/QA processes, but also whether individual programs and their supporting activities incorporate and comply with CPUC policies and prior CPUC Staff disposition guidance in their program rules, policies, procedures and reporting. This includes changes to program rules, offerings and internal operations and processes required to improve overall review and evaluation results. A particularly important area for focus is the improvement of net portfolio performance via the removal of measures and or participation with low program attribution (NTG).	12.5	25%	3.48	8.70	12.5	25%	~~3.00~~3.25	~~7.50~~8.13
Total		**50**	**100%**		**27.50**	**50**	**100%**		~~28.00~~28.63

Attachment B: Custom Project Scores and Feedback

The table below lists the identification numbers associated with each disposition. All custom projects were scored using new metrics adopted in 2016. The metrics are shown in the Table below.

Table 4 *2016 Adopted Performance Metrics*

Metric	2016 CPUC Adopted Performance Metrics	Maximum Points	% of Total Points
Metric 1	**Timeliness and Timing of Submittals** Timely submittal of all documentation and follow-up utility responses to review disposition action items.	**5.0**	**10%**
Metric 2	**Content, Completeness and Quality of Submittals** Completeness, appropriateness, comprehensiveness, accuracy, and clarity of submitted documentation. In addition, this metric is an assessment of the utility's adherence to CPUC policies, Decisions, and prior CPUC Staff disposition guidance.	**15.0**	**30%**
Metric 3	**Proactive Initiation of Collaboration** Utility's efforts to bring either measures, questions, and/or savings calculation tools to CPUC Staff for discussion in the early formative stages, before CPUC Staff review selection. In the case of tools, before widespread use in the programs. CPUC Staff expects collaboration among the utilities and for the program administrators to engage with CPUC Staff in early discussions on high profile, high impact measures well before customer commitments are made.	**5.0**	**10%**
Metric 4	**Utility Due Diligence and QA/QC Effectiveness** CPUC Staff expects the utility to have effective Quality Control (QC) and Quality Assurance (QA) processes for its programs and measures. The depth and correctness of the utility's technical review of its ex ante parameters and values, for both Core and Third Party programs, are included under this metric.	**12.5**	**25%**
Metric 5	**Utility Responsiveness to Needs for Process & Program Improvements (Course Corrections)** This metric reflects the utility's efforts to improve, operationalize, and improve its internal processes which are responsible for the creation and assignment of ex ante parameters and values. CPUC Staff looks not only to the utility's internal QC/QA process, but also whether individual programs incorporate and comply with CPUC policies and prior CPUC Staff disposition guidance in its program rules, policies, and procedures.	**12.5**	**25%**

Metric	2016 CPUC Adopted ex ante Metrics	Maximum Points	% of TOTAL POINTS	TOTAL SCORED POINTS	# of Scored Dispositions	Scoring Notes (Portfolio Level)
Metric 1	**Timeliness and Timing of Submittals** Timely submittal of all documentation and follow-up utility responses to review disposition action items.	**5**	**10%**	**5.00**	**5**	In general, SoCalGas complied with SB1131 guidelines for submitting documentation well before the 15 business days required. No projects were found to be late and all were submitted more than a week early.
Metric 2	**Content, Completeness and Quality of Submittals** Completeness, appropriateness, comprehensiveness, accuracy, and clarity of submitted documentation. In addition, this metric is an assessment of the utility's adherence to CPUC policies, Decisions, and prior CPUC Staff disposition guidance.	**15**	**30%**	**7.00**	**3**	While three projects were reviewed out of the eight submitted and selected for review, two of those projects had significant deficiencies including failing the fuel substitution test, not accounting for non-IOU fuel sources, and EULs not exceeding simple payback. For CPUC Project ID 287, numerous measure level deficiencies were found including unclear savings methodology, missing savings calculations, and incorrect measure application type.
Metric 3	**Proactive Initiation of Collaboration** Utility's efforts to bring either measures, questions, and/or savings calculation tools to CPUC Staff for discussion in the early formative stages, before CPUC Staff review selection. In the case of tools, before widespread use in the programs. CPUC Staff expects collaboration among the utilities and for the program administrators to engage with CPUC Staff in early discussions on high profile, high impact measures well before customer commitments are made.	**5**	**10%**	**1.00**	**3**	CPUC Staff did not find that SoCalGas made a significant effort to bring measures, projects, or studies forward for discussion prior to review. There were no early opinion requests submitted and few topics reviewed during bi-weekly calls with CPUC Staff. As such, SoCalGas performed below the minimum expectations for demonstrating proactive collaboration.
Metric 4	**Utility Due Diligence and QA/QC Effectiveness** CPUC Staff expects the utility to have effective Quality Control (QC) and Quality Assurance (QA) processes for its programs and measures. The depth and correctness of the utility's technical review of its ex ante parameters and values, for	**12.5**	**25%**	**7.50**	**3**	CPUC Staff weighted the number of dispositions proceeding without exception against those that required resubmissions or resulted in rejections. Of the three projects reviewed in 2019, only one proceeded without exception, one was allowed to proceed with exceptions, and one required resubmittal. These findings resulted in lower than expected performance with regards to effective QC of projects prior to submitting for review. Conversely, CPUC Staff found that SoCalGas has done a

	both Core and Third Party programs, are included under this metric.					better job than in the past for tracking reasons why projects were cancelled, demonstrating a commitment to improving their QC process.
Metric 5	**Utility Responsiveness to Needs for Process & Program Improvements (Course Corrections)** This metric reflects the utility's efforts to improve, operationalize, and improve its internal processes that are responsible for the creation and assignment of ex ante parameters and values. CPUC Staff looks not only to the utility's internal QC/QA process, but also whether individual programs incorporate and comply with CPUC policies and prior CPUC Staff disposition guidance in its program rules, policies, and procedures.	**12.5**	**25%**	~~7.50~~8.13	**3**	CPUC Staff reviewed three projects in 2019 and observed that performance appeared to ~~deteriorate~~ improve from the first submission to the third submission (i.e. project submissions had ~~more~~ fewer issues when submitted later in 2019 compared to earlier in the year). Though only 3 projects were reviewed, this indicates SoCalGas was diligent in making process improvements over time.~~This demonstrates a lack of process improvements over time.~~ While CPUC Staff believes SoCalGas complied with policies in place, they did not provide substantial evidence on projects that a quality technical review was occurring, nor did they demonstrate that internal processes were improving over time. Improvement in these areas would exhibit compliance with CPUC policies and a willingness to improve internal processes.

Attachment C: Workpaper Scores and Feedback

The table below lists the ID numbers associated with each workpaper submission or disposition and the workpaper review process "score enhancements" scoring area. The listed weight is used in the combining all the individual rows together into a single score for all the rows in the two scoring components ("direct review" and "process issues"); then each category total score gets equal weighting in the final total score for the metric. The IOU 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,
'-' indicates a negative (from midpoint) scoring impact on a metric,
'Yes' indicates meeting expectation; neutral (midpoint) scoring impact on a metric,
'No' indicates the review feedback is not applicable to a metric.

Workpaper Reviews					ESPI Metrics				
WP ID	Rev	Title	Comments	Weight	1	2	3	4	5
SWBE001	1	Greenhouse Heat Curtain	The electric unit energy savings (UES) of a greenhouse heat curtain was extracted directly from the Database of Energy Efficient Resources (DEER). The version used to calculate savings for this measure was DEER 2011 (D11 v4.00).	1	Yes	Yes	Yes	Yes	Yes
SWBE002	1	Greenhouse Infrared Film	The electric unit energy savings (UES) of a greenhouse heat curtain was extracted directly from the Database of Energy Efficient Resources (DEER). The version used to calculate savings for this measure was DEER 2011 (D11 v4.00).	1	Yes	Yes	Yes	Yes	Yes
SWBE006	1	Residential Ceiling Insulation	No major issues found in the workpaper content.	1	Yes	Yes	Yes	Yes	Yes
SWBE007	1	Residential Blow in Wall Insulation	No major issues found in the workpaper content.	1	Yes	Yes	Yes	Yes	Yes
SWFS001	2	Commercial Convection Oven – Electric & Gas	SCG was very responsive to follow-up items, rework and uploading/ communication with the CPUC team. The resulting workpaper product was acceptable.	1	Yes	+	Yes	Yes	+
SWFS005	2	Commercial Steam Cooker	CPUC team has reservations surrounding the resulting product -- in particular surrounding the PTS term and lack of documentation supporting the use of that term. However, the product was ultimately. The CPUC team would like to comment that PA quality control and quality assurance needs improvement. The CPUC team discovered errors and omissions that were important to product accuracy; internal PA procedures should better address that area in the future.	1	Yes	-	Yes	-	+
SWFS008	1	Conveyor Oven, Gas, Commercial	The PAs were asked to: formulate and update the workpaper assumptions for baseline & measure case Conveyor Ovens based on available test data. No major issues found in the content.	1	Yes	Yes	Yes	Yes	Yes

SWFS011	2	Commercial Fryer – Gas & Electric	The CPUC team had plenty of opportunity to provide feedback and SCG worked effectively with the CPUC team to address input and make changes.	1	Yes	+	Yes	Yes	+
SWFS013	1	Low-Flow Pre-Rinse Spray Valve	Workpaper document contained inconsistencies in baseline conditions stated, and those in which savings was based on.	1	Yes	Yes	Yes	-	Yes
SWFS014	2	Rack Oven	Baseline values for Single Rack ovens were updated to include Energy Star units for consistency. Measure case values for Double Rack ovens were revised based on rebated models from January 2017 – May 2019. The Ex Ante team's review suggested updates to the measure case, base case as well as calculation assumptions. The PAs checked a sample of project invoices to confirm the oven size rebated and the tracking based on the Ex Ante team's recommendation; updates based upon Ex Ante team's review appear correct. The parameter derivation made reproducible and more transparent. The collaboration was effective and the revised WP.	1	Yes	+	Yes	Yes	+
SWFS014	1	Rack Oven	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 ex ante 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.	1	Yes	+	Yes	Yes	+
SWFS017	1	Automated Conveyor Broiler, Commercial	Test data were provided for review by the PAs which expedited the review of this WP.	1	Yes	Yes	Yes	+	Yes
SWFS019	1	Underfired Broiler, Commercial	Test data were provided for review by the PAs which expedited the review of this WP.	1	Yes	Yes	Yes	+	Yes
SWHC001	1	Gravity Wall Furnace	Issues with the workpaper were identified that include 1) Measure case eligible unit capacity specification lists list two different upper limits; in one section it lists ≤27 kbtu/hr and in another section lists ≤60 kbtu/hr. 2) The DEER differences table at the end of the WP, lists a NTG of 0.7 instead of what was used in the WP (0.55 for default residential measures).	1	Yes	-	Yes	-	+
SWHC002	1	Intermittent Pilot Light, Residential	Incorrectly applied EUL of host equipment (HV-EffFurn) instead of measure equipment. The RUL would be based on the host equipment.	1	Yes	-	Yes	Yes	Yes
SWHC011	1	Furnace, Commercial	The gas unit energy savings (UES) from the high efficiency central gas furnace were drawn directly from the Database of Energy Efficient Resources (DEER). The version used to calculate savings for these measures is DEER 2020 (v2.5.1). The results were reported in the Remote Ex-Ante Database Interface (READI) tool.	1	Yes	Yes	Yes	Yes	Yes
SWHC031	1	High-Efficiency Furnace, Residential	Discrepancy in cost values between EAD tables, and Measure Data Specification worksheets.	1	Yes	-	Yes	-	Yes
SWHC047	1	Gas Fireplace, Residential	No major issues found in the workpaper content; timeliness was sufficient.	1	Yes	Yes	Yes	Yes	Yes
SWHC048	1	Packaged Air Conditioner Heat Recovery, Commercial	No major issues found in the workpaper content; timeliness was sufficient.	1	Yes	Yes	Yes	Yes	Yes
SWPR003	1	Steam Trap, Commercial	The unit energy savings (UES) per failed steam trap was derived from the UES presented in Steam Traps Workpaper for PY2006-2008 (Revision G) published in 2007. The UES values, however, were adjusted to account for several factors and engineering assumptions, as stipulated in the Non-DEER Measure Review by the Data Management and Quality Control reviewers (ED/DMQC) of the California Public Utilities Commission (CPUC) Energy Division.	1	Yes	Yes	Yes	Yes	Yes
SWPR007	1	Steam Boiler Economizer, Industrial	PA developed a workpaper plan and addressed all issues brought up by the CPUC team in the workpaper. In the EAD tables, no distinction is made between NC and AOE measure offerings when it comes to measure life (EUL, RUL). EUL of 20 years is applied to all measure offerings. This would be true for the NC measures, but not the AOE for existing boilers. AOE measures should use the lesser of RUL of host equipment (boiler) and EUL of add-on-equipment (feedwater economizer). Measure life is appropriately applied in the final workpaper document.	1	Yes	Yes	Yes	Yes	+
SWRE001	1	Pool Cover, Commercial	The WP uses a model developed by SCE to calculate energy savings. Ex Ante team reviewed the tool and found discrepancies in the assumptions, inputs and results - the values reported in the wp were not used in the calculator. After discussion with the PA, the issues were addressed, and a revised WP and calculator was updated.	1	Yes	+	Yes	Yes	+

SWRE004	1	Pool or Spa Heater, Residential	No major issues found in the workpaper content; timeliness was sufficient.	1	Yes	Yes	Yes	Yes	Yes
SWWH001	2	Faucet Aerator, Residential	No major issues found in the workpaper content; timeliness was sufficient.	1	Yes	Yes	Yes	Yes	Yes
SWWH002	2	Low-Flow Showerhead, Residential	Water savings values were some of the measure offerings were incorrectly calculated using a baseline of 2 gpm instead of 2.25 gpm (AR first base) or 1.8 gpm (NR, NC, AR second base). Added, flow control valves as an AOE measure. Savings is accurate, based on existing baseline of 2.25 gpm. However, EUL=RUL of host equipment was not described in the WP for this measure.	1	Yes	-	Yes	Yes	+
SWWH003	1	Temperature-Initiated Shower Flow Restriction Valve with And Without an Integrated Low-Flow Showerhead	Workpaper did not include PoE stipulation for the AR offerings, which was corrected on review.	1	Yes	Yes	Yes	Yes	Yes
SWWH004	1	Laminar Flow Restrictor	Workpaper has minor errors that were noted, such as listing all sectors (Ag, Com, Ind) as eligible, when eligible building type is limited to health care facilities.	1	Yes	Yes	Yes	Yes	Yes
SWWH007	1	Storage Water Heater, Commercial	Participated in conversations regarding revisions to water heater calculator and took the lead on gathering water heater input data.	1	Yes	+	Yes	Yes	+
SWWH010	1	Boiler, Multifamily	No major issues found in the workpaper content.	1	Yes	Yes	Yes	Yes	Yes
SWWH012	1	Storage Water Heater, Residential	Participated in conversations regarding revisions to water heater calculator and took the lead on gathering water heater input data.	1	Yes	Yes	Yes	Yes	+
SWWH013	1	Tankless Water Heater, Residential	Participated in conversations regarding revisions to water heater calculator and took the lead on gathering water heater input data.	1	Yes	Yes	Yes	Yes	+
SWWH015	1	Demand Control for Centralized Water Heater Recirculation Pump, Multifamily	Stage 1 issues from CalTF PPT not addressed. Workpaper was confusing leading to some ambiguity on what the appropriate measure application type would be, but this was resolved	1	Yes	Yes	Yes	Yes	Yes
SWWH015	2	Demand Control for Centralized Water Heater Recirculation Pump, Multifamily	No major issues found in the workpaper content.	1	Yes	Yes	Yes	Yes	Yes
SWWH016	1	Domestic Hot Water Loop Temperature Controller, Multifamily	No major issues found in the workpaper content.	1	Yes	Yes	Yes	Yes	Yes
SWWH017	1	Hot Water Pipe Insulation	There were some minor errors in the consistency of the content in the workpaper; the workpaper document would not list information like EUL correctly, but the database tables had the correct information.	1	Yes	Yes	Yes	No	Yes
SWWH018	1	Hot Water Tank Insulation, Nonresidential	No major issues found in the workpaper content.	1	Yes	Yes	Yes	Yes	Yes
SWWH020	2	Low-Flow Showerhead, Commercial	Water savings values were some of the measure offerings were incorrectly calculated using a baseline of 2 gpm instead of 2.25 gpm (AR first base) or 1.8 gpm (NR, NC, AR second base). Added, flow control valves as an AOE measure. Savings is accurate, based on existing baseline of 2.25 gpm. However, EUL=RUL of host equipment was not described in the WP for this measure.	1	Yes	-	Yes	Yes	Yes
SWWH021	1	Recirculation Pump Timer, Commercial	No major issues found in the workpaper content; timeliness was sufficient.	1	Yes	Yes	Yes	Yes	Yes
SWWH023	1	Diverting Tub Spout with Tsv	PoE stipulation not included in workpaper for AR offerings. Baseline for NC and NR should be code at the time of project commencement. The workpaper uses a NC, NR baseline of 2.0 gpm showerhead flow rates, corresponding to 2016 code instead of 1.8 gpm from current 2018 code.	1	Yes	Yes	Yes	Yes	Yes

SWWH024	1	Central Boiler Dual Setpoint Temp. Controller, Multifamily	No major issues found in the workpaper content; timeliness was sufficient.	1	Yes	Yes	Yes	Yes	Yes
SWWH026	1	Pipe Wrap, Residential	New. PA developed a workpaper plan and worked with CPUC team during the pre-review session. Workpaper addressed the questions and comments brought up during the pre-review session. A couple of additional questions during the workpaper review such as: Are the outdoor pipe measure offerings intended for unconditioned garage spaces? If this is the case, is 30% of weather station measured wind speed still an overestimate for garage spaces?	1	Yes	+	Yes	Yes	+
WPSCGNRCC180529A	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.	1	Yes	+	Yes	Yes	+
WPSCGREAP090718A	0	Residential Ozone Laundry Retrofit	New workpaper submittal. Review issued no comments. Workpaper was complete.	1	Yes	Yes	Yes	Yes	+
WPSCGREHC180723A	0	Intermittent Pilot Light	New workpaper submittal. Review issued no comments. Workpaper was complete.	1	Yes	Yes	Yes	Yes	+
WPSCGREHC181220A	0	Gas Fireplace	New workpaper submittal. Review issued no comments. Workpaper was complete.	1	Yes	Yes	Yes	Yes	+
WPSCGREWH180305A	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.	1	Yes	No	Yes	Yes	+

Workpaper Submissions

WP ID	Rev	Title	Submission Status: EAR Team Comments
SWBE001	1	Greenhouse Heat Curtain	Detailed review – resubmit - scored in detailed review section
SWBE002	1	Greenhouse Infrared Film	Detailed review – resubmit - scored in detailed review section
SWBE006	1	Residential Ceiling Insulation	Detailed review – resubmit - scored in detailed review section
SWBE007	1	Residential Blow in Wall Insulation	Detailed review – resubmit - scored in detailed review section
SWFS001	2	Commercial Convection Oven – Electric & Gas	Detailed review – resubmit - scored in detailed review section
SWFS005	2	Commercial Steam Cooker	Detailed review – resubmit - scored in detailed review section
SWFS008	1	Conveyor Oven, Gas, Commercial	Detailed review – resubmit - scored in detailed review section
SWFS011	2	Commercial Fryer – Gas & Electric	Detailed review – resubmit - scored in detailed review section
SWFS013	1	Low-Flow Pre-Rinse Spray Valve	Detailed review – resubmit - scored in detailed review section
SWFS014	2	Rack Oven	Detailed review – resubmit - scored in detailed review section
SWFS014	1	Rack Oven	Detailed review – resubmit - scored in detailed review section
SWFS017	1	Automated Conveyor Broiler, Commercial	Detailed review – resubmit - scored in detailed review section
SWFS019	1	Underfired Broiler, Commercial	Detailed review – resubmit - scored in detailed review section
SWHC001	1	Gravity Wall Furnace	Detailed review – resubmit - scored in detailed review section
SWHC002	1	Intermittent Pilot Light, Residential	Detailed review – resubmit - scored in detailed review section
SWHC011	1	Furnace, Commercial	Detailed review – resubmit - scored in detailed review section
SWHC031	1	High-Efficiency Furnace, Residential	Detailed review – resubmit - scored in detailed review section
SWHC047	1	Gas Fireplace, Residential	Detailed review – resubmit - scored in detailed review section
SWHC048	1	Packaged Air Conditioner Heat Recovery, Commercial	Detailed review – resubmit - scored in detailed review section
SWPR003	1	Steam Trap, Commercial	Detailed review – resubmit - scored in detailed review section
SWPR007	1	Steam Boiler Economizer, Industrial	Detailed review – resubmit - scored in detailed review section
SWRE001	1	Pool Cover, Commercial	Detailed review – resubmit - scored in detailed review section
SWRE004	1	Pool or Spa Heater, Residential	Detailed review – resubmit - scored in detailed review section
SWWH001	2	Faucet Aerator, Residential	Detailed review – resubmit - scored in detailed review section
SWWH002	2	Low-Flow Showerhead, Residential	Detailed review – resubmit - scored in detailed review section
SWWH003	1	Temperature-Initiated Shower Flow Restriction Valve sith And Without An Integrated Low-Flow Showerhead	Detailed review – resubmit - scored in detailed review section
SWWH004	1	Laminar Flow Restrictor	Detailed review – resubmit - scored in detailed review section
SWWH007	1	Storage Water Heater, Commercial	Detailed review – resubmit - scored in detailed review section

SWWH010	1	Boiler, Multifamily	Detailed review – resubmit - scored in detailed review section
SWWH012	1	Storage Water Heater, Residential	Detailed review – resubmit - scored in detailed review section
SWWH013	1	Tankless Water Heater, Residential	Detailed review – resubmit - scored in detailed review section
SWWH015	1	Demand Control for Centralized Water Heater Recirculation Pump, Multifamily	Detailed review – resubmit - scored in detailed review section
SWWH015	2	Demand Control for Centralized Water Heater Recirculation Pump, Multifamily	Detailed review – resubmit - scored in detailed review section
SWWH016	1	Domestic Hot Water Loop Temperature Controller, Multifamily	Detailed review – resubmit - scored in detailed review section
SWWH017	1	Hot Water Pipe Insulation	Detailed review – resubmit - scored in detailed review section
SWWH018	1	Hot Water Tank Insulation, Nonresidential	Detailed review – resubmit - scored in detailed review section
SWWH020	2	Low-Flow Showerhead, Commercial	Detailed review – resubmit - scored in detailed review section
SWWH021	1	Recirculation Pump Timer, Commercial	Detailed review – resubmit - scored in detailed review section
SWWH023	1	Diverting Tub Spout with Tsv	Detailed review – resubmit - scored in detailed review section
SWWH024	1	Central Boiler Dual Setpoint Temp. Controller, Multifamily	Detailed review – resubmit - scored in detailed review section
SWWH026	1	Pipe Wrap, Residential	Detailed review – resubmit - scored in detailed review section
WPSCGNRCC180529A	0	Undercounter Dishwasher	Detailed review – resubmit - scored in detailed review section
WPSCGREAP090718A	0	Residential Ozone Laundry Retrofit	Detailed review – resubmit - scored in detailed review section
WPSCGREHC180723A	0	Intermittent Pilot Light	Detailed review – resubmit - scored in detailed review section
WPSCGREHC181220A	0	Gas Fireplace	Detailed review – resubmit - scored in detailed review section
WPSCGREWH180305A	0	MF Central boiler dual setpoint temp controller	Detailed review – resubmit - scored in detailed review section
WPSCGREWH180305A	0	MF Central boiler dual setpoint temp controller	Detailed review – resubmit - scored in detailed review section
SWFS014	1	Comm Rack Oven-Gas	Detailed review – resubmit - scored in detailed review section
WPSCGNRCC180529A	0	Undercounter Dishwasher	Detailed review – resubmit - scored in detailed review section
SWWH007	1	Storage Water Heater, Commercial	Detailed review – resubmit - scored in detailed review section
SWWH013	1	Tankless Water Heater, Residential	Detailed review – resubmit - scored in detailed review section
SWWH012	1	Storage Water Heater, Residential	Detailed review – resubmit - scored in detailed review section
WPSCGREHC180723A	0	Intermittent Pilot Light	Detailed review – resubmit - scored in detailed review section
WPSCGREAP090718A	0	Residential Ozone Laundry Retrofit	Detailed review – resubmit - scored in detailed review section
WPSCGREHC181220A	0	Gas Fireplace	Detailed review – resubmit - scored in detailed review section
WPSCGREWH180305A	0	MF Central boiler dual setpoint temp controller	Review complete - interim approval
SWFS002	1	Comm Door-type Dishwasher	Review complete - interim approval
SWFS003	1	Comm Combi Oven	Review complete - interim approval
SWFS004	1	Comm Griddle	Review complete - interim approval
SWFS014	1	Comm Rack Oven-Gas	Disposition issued - Not approved

WPSCGNRCC180705	0	Commercial Underfired Broilers	Review complete - interim approval		
WPSCGNRCC180529	0	Undercounter Dishwasher	Review complete - interim approval		
WPSCGNRHC180524	0	Commercial Condensing Gas Furnace	Review complete - interim approval		
WPSCGREHC180723	0	Intermittent Pilot Light	Review complete - interim approval		
SCGWP100310A	10	Deemed Program for Commercial Steam Traps	Review complete - interim approval		
WPSCGREAP090718A	0	Residential Ozone Laundry Retrofit	Review complete - interim approval		
WPSCGNRWH121113A	4	Low Flow Pre Rinse Spray Valves	Review complete - interim approval		
WPSCGREHC181220A	0	Gas Fireplace	Review complete - interim approval		
WPSCGWP110812A	5	Pipe Insulation	Review complete - interim approval		
SWAP005	1	Ozone Laundry, Nonresidential	Review complete - interim approval		
SWAP006	1	Dishwasher, Residential	Review complete - interim approval		
SWFS013	1	Low-flow Pre-rinse Spray Valve	Review complete - interim approval		
SWWH001	1	Faucet Aerator	Review complete - interim approval		
SWWH002	1	Low-flow Showerhead, Residential	Review complete - interim approval		
SWWH003	1	TSV with and without a Low-Flow Showerhead	Review complete - interim approval		
SWWH019	1	Faucet Aerator, Commercial	Review complete - interim approval		
SWWH004	1	Laminar Flow Restrictor, Commercial	Review complete - interim approval		
SWWH020	1	Low-flow Showerhead, Commercial	Review complete - interim approval		
SWWH023	1	Tub Spout Diverter, Residential	Review complete - interim approval		
WPSCGREWH120919A	5	Tankless Water Heaters	Review complete - interim approval		
WPSCGREWH180207A	1	Residential Small Storage Water Heaters	Review complete - interim approval		
WPSCGNRWH120206B	8	Non-Res Tankless Water Heater	Review complete - interim approval		
WPSCGNRWH120206A	11	Non-Res Storage Water Heater	Review complete - interim approval		
SWWH006	1	Tankless Water Heater, Commercial	Review complete - interim approval		
SWWH010	1	Boiler, Multifamily	Review complete - interim approval		
SWWH007	1	Storage Water Heater, Commercial	Review complete - interim approval		
SWWH013	1	Tankless Water Heater, Residential	Review complete - interim approval		
SWWH012	1	Storage Water Heater, Residential	Review complete - interim approval		
SWWH016	1	DHW Loop Temp Controller	Review complete - interim approval		
SWWH015	1	Recirculation Pump Control, Multifamily	Review complete - interim approval		
SWWH018	1	Hot Water Tank Insulation, Nonresidential	Review complete - interim approval		
SWWH017	1	Hot Water Pipe Insulation, Nonresidential	Review complete - interim approval		
SWWH021	1	Recirculation Pump Timer, Commercial	Review complete - interim approval		

Process Adder	ESPI Metrics					
	Weight	1	2	3	4	5
SoCalGas has demonstrated effective workpaper leadership, managing the submissions for more complex measures including food services, smart communicating thermostat thermal savings (SCT), and pool covers. SoCalGas also communicated program impacts of SCTs effectively. SoCalGas lead for the revision of four major workpapers with research expanded beyond that specified in the disposition and working extensively and collaboratively with the subject matter experts to greatly improve the reliability of the savings estimates for these measures. There was remaining issue where additional research is required, but the overall the reliability of the savings estimates for these measures has been improved.	1	No	+	No	+	No
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 acknowledges SoCalGas's role in making this submission cycle successful and timely.	1	No	No	+	No	No
SoCalGas collaborated with CPUC Staff and the 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, coordinating the WPs to be used for ABAL 2020. As noted in another score, the identification and resolution of these issues should have happened earlier.	1	No	No	No	Yes	No
SoCalGas collaborated with the other PAs and CPUC Staff to present a Third Party Workpaper Q&A webinar on April 11. SoCalGas also provided an overview of its internal systems supporting the deemed process.	1	No	No	No	Yes	No

Attachment D: 2019 Performance Annual Ratings

Custom Scoring

2019 Annual Custom Ratings		Metric 1	Metric 2	Metric 3	Metric 4	Metric 5	
Direct Work Product Review Score	Disposition Score (1-5)	5.00	2.33	1.00	3.00	~~3.00~~3.25	
Review Process Score Enhancements	Technical & Policy QC Increase	0.00	0.00	0.00	0.50	0.50	
	Implementation Increase	0.00	0.00	0.00	0.00	0.00	
Total Score	Adjusted Final Metric Score (1-5)	5.00	2.33	1.00	3.50	~~3.50~~3.75	Total Points
	Adjusted Metric Points	5.00	7.00	1.00	8.75	~~8.75~~9.38	~~30.50~~31.13

2018 Annual Custom Ratings		Metric 1	Metric 2	Metric 3	Metric 4	Metric 5	
Direct Work Product Review Score	Disposition Score (1-5)	2.00	2.00	2.44	2.00	3.60	
Review Process Score Enhancements	Technical & Policy QC Increase	0.00	0.00	1.00	0.50	0.50	
	Implementation Increase	dd0	0.00	0.00	0.50	1.00	
Total Score	Adjusted Final Metric Score (1-5)	2.00	2.00	3.44	3.00	5.00	Total Points
	Adjusted Metric Points	2.00	6.00	3.44	7.50	12.50	31.45

This embedded workbook contains all of the SoCalGas Custom Scoring tables.

Workpaper Scoring

2019 Annual Workpaper Ratings		Metric 1	Metric 2	Metric 3	Metric 4	Metric 5	
Direct Workproduct Review Score	SCG "-"	0%	13%	0%	9%	0%	
	SCG "+"	0%	18%	0%	4%	39%	
	SCG "Yes"	100%	69%	100%	87%	61%	
	Dispositions Score %	**50%**	**52%**	**50%**	**48%**	**70%**	
	Dispositions Score	**2.50**	**2.61**	**2.50**	**2.39**	**3.48**	
Review Process Score Enhancements	SCG "-"		0%	0%	0%		
	SCG "+"		100%	100%	33%		
	SCG "Yes"		0%	0%	67%		
	Process Score %	**0%**	**100%**	**100%**	**67%**	**0%**	
	Process Increase Score	**0.00**	**5.00**	**5.00**	**3.33**	**0.00**	
	Process Increase Weight	**0.50**	**0.50**	**0.50**	**0.50**	**0.50**	
	Process Increase Wtd Score	**0.00**	**2.50**	**2.50**	**1.67**	**0.00**	
Total Score	**Final Metric Score (1-5)**	**2.50**	**5.00**	**5.00**	**4.06**	**3.48**	**Total Points**
	Metric Points with Weighting	**2.50**	**15.00**	**5.00**	**10.14**	**8.70**	**41.33**

2018 Annual Workpaper Ratings		Metric 1	Metric 2	Metric 3	Metric 4	Metric 5	
Direct Workproduct Review Score	SCG "-"	73%	71%	0%	50%	0%	
	SCG "+"	0%	14%	0%	25%	75%	
	SCG "Yes"	27%	14%	100%	25%	25%	
	Dispositions Score %	**14%**	**21%**	**50%**	**38%**	**88%**	
	Dispositions Score	**0.68**	**1.07**	**2.50**	**1.88**	**4.38**	
Review Process Score Enhancements	SCG "-"	33%	0%	0%	100%	0%	
	SCG "+"	0%	0%	50%	0%	0%	
	SCG "Yes"	67%	0%	50%	0%	0%	
	Process Score %	**33%**	**0%**	**75%**	**0%**	**0%**	
	Process Increase Score	**1.67**	**0.00**	**3.75**	**0.00**	**0.00**	
	Process Increase Weight	**0.50**	**0.50**	**0.50**	**0.50**	**0.50**	
	Process Increase Wtd Score	**0.83**	**0.00**	**1.88**	**0.00**	**0.00**	
Total Score	**Final Metric Score (1-5)**	**1.52**	**1.07**	**4.38**	**1.88**	**4.38**	**Total Points**
	Metric Points with Weighting	**1.52**	**3.21**	**4.38**	**4.69**	**10.94**	**24.73**

Explanations of scoring tables row entries

1. The row labeled with *IOU "-"* lists the percent of workpaper reviews undertaken where the CPUC Staff evaluation of the materials or information indicated that the IOU performance in this metric for the submission did not meet minimum expectations or requirements relative to the metric.
2. The row labeled with *IOU "+"* lists the percent of workpaper reviews undertaken where the CPUC Staff evaluation of the materials or information indicated that the IOU performance in this metric for the submission exceeded minimum expectations or requirements relative to the metric.
3. The rows labeled with *IOU "Yes"* lists the percent of workpaper reviews undertaken where the CPUC Staff evaluation of the materials or information indicated that the IOU performance in this metric for the submission exceeded met minimum expectations or requirements relative to the metric.
4. The "Dispositions Score %" row (and "Process Increase Score" for workpapers) indicates how the combination of the three rows of scores (+, -, and yes) sum into a total points multiplier for each metric. Each row contributes to the total based on the row count over the total count for all three rows.
5. The "Disposition Score" (and "Process Increase Score" for workpapers) row converts the percent score into a numeric value of up to five by directly applying the percent to a value of 5.
6. The custom row labeled with "*Technical & Policy QC Increase"* lists CPUC Staff points added to the metric based on an evaluation of the overall IOU performance in putting into place quality assurance and/or quality control methods, documents and/or training for staff and contractors related to this metric area that are expected to improve the ability of review personnel to identify

and cure issues going forward on projects started during 2016 but not yet seen in the custom review activity.

7. The custom row labeled with "*Implementation Increase"* lists CPUC Staff points added to the metric based on an evaluation of the overall IOU performance in putting into place new or changed program rules, eligibility criteria, incentive structures, application and implementation contract processes and procedures in 2016 related to this metric area that are expected to improve performance going forward on projects started but not yet seen in the custom review activity.
8. The workpaper rows labeled with "*Review Process Score Enhancements"* lists CPUC Staff scoring for each metric based on an evaluation of the overall IOU performance in putting into place quality assurance and/or quality control methods, documents and/or training for staff and contractors that are expected to improve the ability of review personnel to identify and cure issues going forward on workpapers. This score is weighted as an increase to the disposition score based on the fractional weight listed in the "Process Increase Weight" row.
9. The "Final Metric Score" row indicates the total score for each metric as a sum of the Direct Work product Review Score plus the Review Process Score Enhancements (either as a simple sum for custom or a weighted value sum for workpapers) to provide a final metric score with the final score constrained between a maximum score of 5 and a minimum score of 1.
10. The "Metric Points" row provides the point value derived from the Final Metric Score row. If the maximum point value associated with a metric is greater than 5 then the score is multiplied by the max point value divided by 5 to obtain the metric point value related to the final score.