STATE OF CALIFORNIA

Gavin Newsom, Governor

PUBLIC UTILITIES COMMISSION

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

To: Southern California Edison Company (SCE)

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 Commission (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 Edison Company (SCE) 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 SCE's 2019 ESPI performance score of ~~89.60~~91.48/100 for workpapers[2] and custom projects is shown below in Table 1. SCE's 2019 total points is an increase over its 2018 total points of 80.70. Scores for 2018 are provided in Table 2 on the following page.

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

SCE 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	4.10	30%	~~12.31~~14.42	15
3	Proactive Initiative of Collaboration	5.00	10%	5.00	5	5.00	10%	5.00	5
4	Due Diligence and QA/QC Effectiveness	3.57	25%	8.92	12.5	4.60	25%	11.50	12.5
5	Responsiveness to Needs for Process/Program Improvements	5.00	25%	12.50	12.5	4.75	25%	11.88	12.5
Total				43.92	50			~~45.68~~47.80	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: SCE 2018 ESPI Scoring for Workpapers and Custom Projects

SCE 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	2.32	10%	2.32	5	5.00	10%	5.00	5
2	Content, Completeness, and Quality of Submittals	3.00	30%	9.00	15	5.00	30%	15.00	15
3	Proactive Initiative of Collaboration	4.38	10%	4.38	5	5.00	10%	5.00	5
4	Due Diligence and QA/QC Effectiveness	1.00	25%	2.50	12.5	5.00	25%	12.50	12.5
5	Responsiveness to Needs for Process/Program Improvements	5.00	25%	12.50	12.5	5.00	25%	12.50	12.5
Total				**30.70**	**50**			**50.00**	**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, SCE submitted 71 custom projects to CPUC Staff for review selection. CPUC Staff selected 39 of these projects for review and issued 25 custom project dispositions. The remaining 14 SCE projects selected for review in 2019 were reviewed and had dispositions issued in early 2020 due to the timing of their selection.[4] No review waivers were issued in 2019.[5] A review of the project dispositions and the Review Process Score Enhancements points resulted in SCE's custom project score decreasing by ~~4.32~~ 2.20 points from 2018 scores (50.0 in 2018 vs. ~~45.68~~ 47.80 in 2019 as shown in Tables 1 and 2 above). Note that SCE's 2018 custom projects score was based on CPUC staff issuing one project

[3] Deemed are a set of predetermined savings values for efficiency measures that are developed from commonly accepted data sources and analytical methods.
[4] 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.
[5] 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.

review disposition. Despite the appearance of a decrease in the score, SCE continues to demonstrate efforts to improve its performance. CPUC Staff's observations include:

- **The number of issues regarding gross savings impacts dropped dramatically.** In 2018, only one disposition was issued that year which does not provide a reliable comparison. In 2017 however, there were 21 issues related to gross savings impacts. In 2019, there were ~~only 3~~ no issues regarding gross savings impacts. SCE is showing improvements in the processes and procedures used to estimate gross impacts.
- **SCE continues to improve its processes for determining eligible projects and increasing documentation**. Projects were submitted on the due date, with 6 projects (24 percent) submitted early by 5 days or more indicating SCE's processes are reducing the time for custom projects to be submitted with appropriate documentation.
- **The number of issues in the Process, Policy, and Program rules area dropped dramatically.** In 2017 there were 63 issues identified, whereas in 2019 this number dropped to 2~~3~~. SCE has taken a lead role in developing the Statewide Custom Project Guidance Document and has put those policies into practice in their internal reviews.

2. Summary of Areas Requiring Improvement

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

- ~~SCE must ensure projects are authorized to proceed prior to implementation, and that all non-IOU Energy Sources are accounted for. Though this issue was limited to two SCE reviewed projects, these deficiencies are critical elements of project submissions.~~
- SCE must include project cost and effective useful life (EUL) data for all projects and test the simple payback against the project EUL. One of the Statewide Custom Project Guidance Document eligibility rules states that the project simple payback must be less than the project effective useful life. There was initial confusion regarding this rule that resulted in project exceptions.

B. Workpapers Review Overview

1. Summary of 2019 Achievements

SCE's workpapers scores have increased compared to last year by 13.22 points (from 30.70 in 2018 to 43.92 as shown in Tables 1 and 2 above). SCE continues to demonstrate efforts to improve its performance. CPUC Staff observed improvements in SCE's development and management of workpaper submissions in the following areas:

- **Successful transition to statewide workpapers**. SCE, 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 SCE's role in making this submission cycle successful and timely.
- **Effective workpaper leadership**. SCE has demonstrated effective workpaper leadership, managing the submissions for more complex measures including screw-in lighting, smart communicating thermostat electric savings, refrigeration measures, and pool pumps. SCE

also revamped the refrigeration building prototypes and was a key contributor to the fuel substitution workpaper development.

- **Forward thinking**. SCE has shown forward thinking in its piloting of a third party workpaper complaint log and in its analysis of the changes in the contribution of deemed measures to the portfolio with the diminishment of lighting measures.

2. Summary of Areas of Improvement

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

- SCE, in collaboration with the other PAs, should plan workpaper updates holistically, with research activities coordinated across workpapers of the same end-use.
- SCE, in collaboration with the other PAs, should identify issues which potentially will disrupt existing processes earlier and propose methods for their orderly resolution.
- SCE 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 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 39 new SCE projects for review and of those 25 received dispositions and none received a review waiver. The remaining 14 projects' dispositions were issued in early 2020 due to the timing 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 issued dispositions is included in Attachment B. 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 project reviewer.

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

Table 3: SCE 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%	~~12.31~~14.42	~~12.31~~14.42	15
3	Proactive Initiative of Collaboration	10%	5.00	5.00	5
4	PA's Due Diligence and QA/QC	25%	11.50	9.00	12.5
5	PA's Responsiveness	25%	11.88	9.38	12.5
Total			~~45.68~~47.80	~~40.68~~42.80	50

1. Timeliness of Submittals

In 2019, SCE 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 25 custom project reviews completed in 2019. In 2019, all 25 reviewed projects were submitted on time and 6 projects (24 percent) were submitted five days or 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

In 2019, SCE received a custom disposition score of ~~12.31~~14.42 out of 15.0 for Metric 2 (Content, Completeness, and Quality of Submissions) prior to the addition of any enhancement points. This disposition score was based on the completeness of the 25 SCE custom project reviews. Of these 25 dispositions, 13 projects (52 percent) contained no errors that were critical to the completeness of the submittal and were allowed to proceed without exception. The remaining 12 projects (48 percent) were allowed to proceed with exceptions. Only ~~5~~ 2 out of the 25 SCE projects reviewed had deficiencies which resulted in a loss of points under this metric.

Table 4 summarizes the 6 action items identified across 25 dispositions issued between July 1, 2019 and December 31, 2019.

[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".

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	0	1	1	33%
	M&V plan	1	1	2	67%
	Subtotals	**1**	**2**	**3**	**50%**
Process, Policy, Program Rules	Baseline	1	0	1	33%
	EUL/RUL	1	1	2	67%
	Subtotals	**2**	**1**	**3**	**50%**
	Grand Total	**3**	**3**	**6**	**100%**

Issue Area	Action Categories	Summary of CPUC Staff Required Action by the PA:	Summary of CPUC Staff Notes or Instructions:	Total	Percent of Total
Process, Policy, Program Rules	Eligibility	1	0	1	50%
	EUL/RUL	1	0	1	50%
	Subtotals	**2**	**0**	**2**	**100%**
	Grand Total	**2**	**0**	**2**	**100%**

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

- ~~**Non-IOU Energy Source not Accounted for** occurred on one project (CPUC Project ID 253) but lost significant ESPI points for this metric due to the importance of accounting for all energy sources included in the project.~~
- ~~**Project not Authorized Prior to Implementation** occurred on two projects (CPUC Project IDs 192 and 248) but lost significant ESPI points due to the importance of authorizing projects prior to implementation.~~
- **EUL did not Exceed Simple Payback** on one project (CPUC Project ID 274) and lost significant ESPI points for this metric due to the importance of this project screening criteria.
- ~~**Incorrect Baseline Values and Incorrect Parameter Assumptions** occurred at the measure level on two projects (CPUC Project IDs 192 and 249) and resulted in a deduction of ESPI points related to this metric.~~
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3. Proactive Initiative of Collaboration

In 2019, SCE received a custom disposition score of 5.0 out of 5.0 for Metric 3 (Proactive Initiative of Collaboration) prior to the addition of any enhancement points. At the portfolio level, SCE made a significant effort to bring measures, projects, and studies forward for discussion prior to CPUC Staff review. SCE brought six early opinion requests related to horticultural lighting, pump overhaul, cement plant control, thermosyphon oil cooling, wastewater treatment plants, and compressed air leak repair. These topics, along with a review of the GreenGrow tool and templates for program influence screening and feasibility studies were reviewed during bi-weekly calls with CPUC Staff. These actions demonstrate performance that exceeds CPUC Staff's expectations compared to what is expected to demonstrate minimum proactive collaboration. CPUC Staff felt SCE exceeded

expectations with regards to proactive collaboration under this metric.

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

In 2019, SCE received a custom disposition score of 9.0 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, 13 of 25 (52 percent) proceeded without exception, and the remaining 12 projects (48 percent) were allowed to proceed with exceptions as noted. This resulted in higher 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 SCE had the required checks in place and were retiring measures that were dated or had become code. SCE demonstrated compliance with this metric by documenting changes they are making to update guideline documents and developing process tools to ensure effective QC on custom projects. Overall CPUC Staff believes SCE made significant efforts to exceed expectations for this metric and is encouraged by program activities noted to continue to streamline project intake, screening, and reviews in the future.

5. PA's Responsiveness

In 2019, SCE received a custom disposition score of 9.38 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 found that projects reviewed from July 2019 through December 2019 exhibited a slight downward trend in terms of project performance over time (i.e. project submissions had more issues when submitted later in 2019 compared to earlier in the year).

B. Workpapers Performance Review

SCE had 86 workpapers which were submitted or disposed in 2019, 61 of which were statewide workpapers led by SCE and the balance of where 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

[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.

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 SCE or SCE workpapers that were disposed during the review period. Workpapers were selected for feedback from those that were submitted by SCE 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 SCE for each metric both with and without the addition of any enhancement points.

Table 5: SCE 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%	15.0	11.17	15
3	Proactive Initiative of Collaboration	10%	5.00	2.50	5
4	PA's Due Diligence and QA/QC	25%	8.92	5.79	12.5
5	PA's Responsiveness	25%	12.50	9.84	12.5
Total			**43.92**	**31.80**	**50**

1. Timeliness of Submittals

In 2019, SCE 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. SCE has largely met deadlines for submission of statewide workpapers in the review period and all workpapers received a Yes, indicating that minimum expectations were met for timeliness.

SCE submitted 18 workpaper plans in 2019. CPUC Staff appreciated the quality of recent workpaper plan submissions and SCE's development of a workpaper plan template with additional scheduling elements. Staff and consultants expect that workpaper plans will include at least a target workpaper submission date early in the development cycle. As the development cycle advances, the schedule should become more detailed with itemized tasks, interim deliverables, and Staff review milestones with projected due dates. We expect SCE 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 anticipated through the end of the year, 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. Three workpapers were submitted by SCE that were not in the October workplan, all fuel substitution measures (Ductless HVAC, Residential, Heat Pump HVAC, Residential, Heat Pump/Unitary Air-Cooled HVAC, Commercial), however, there was some advance notice of their pending submission.

2. Content, Completeness, and Quality of Submissions

In 2019, SCE received a workpaper disposition score of 11.17 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. There was only one workpaper with a content deficiency of note where certain identifier fields were not included in the data tables. SoCalGas averaged 74 percent of the direct work product points for this metric, exceeding minimum expectations for workpaper content.

SCE submitted the most workpapers of all PAs and 27 required complex development. The workpaper development included revisions to linear lighting measures using industry standard baseline research, revised pool pump measures with new data, refrigeration measures requiring new simulation models, and new fuel substitution measures, which required adaption of the workpaper templates to reflect the exchange in fuels.

PAs have an important responsibility to identify new technologies and delivery methods, and to develop workpapers where a deemed option makes sense. SCE submitted four new workpapers in 2019. CPUC Staff encourages the continued development of new measure workpapers to ensure innovative measures. SCE has also explored measures which have not results in workpaper at this time. SCE examined the potential for a screw-in lamp niche markets using the retail shelf survey data collected by the ex post evaluators. SCE is analyzing the data to determine the distribution of lighting products sold today and to identify gaps in the market that might be served by programs.

In order to assess if the refrigeration measures would be eligible for continued participation in the programs, SCE led an effort to conduct an industry standard practice assessment and update the impacted building types accordingly. SCE worked in collaboration with the CPUC to assess the industry standard practice for key DOE2 parameters[10] in the building prototype.

SCE played a leadership role in developing fuel substitution energy efficiency measures guidance and tools including technical guidelines, establishing policy clarifications, defining key system impacts, and training several energy efficiency stakeholders to support the success of fuel substitution measures in 2020. SCE team completed the work in a short period of time.

[9] Phase 2 workpapers are for new measures or revisions to workpapers that are not submitted in response to the DEER Resolution.
[10] DOE2 is a building simulation tool which was used to model refrigeration measures.

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 SCE's views on program and market impacts of workpapers. As an example, SCE provided an analysis of deemed workpaper trends and 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. Both of these presentations were excellent, and CPUC Staff encourages communication of how workpaper revisions impact the market. CPUC Staff will expect regular updates of market conditions related to workpapers in the regularly scheduled meetings.

3. Proactive Initiative of Collaboration

In 2019, SCE 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 minimum expectations of collaboration which was required to ensure each workpaper met all PAs' 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 SCE is to be commended and has been further recognized in the Process Adder Score.

SCE led the effort on behalf of the IOUs to complete and submit a consolidated Workpaper Plan in October 2019. This involved coordinating and receiving inputs from the other IOUs, compiling them into a single report, and performing a quality-control check before uploading to WPA. SCE also collaborated with the other PAs and 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, SDG&E received a workpaper disposition score of 5.79 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 SCE workpapers was usually acceptable. However, there were cases where workpapers were submitted where key values were not defined that resulted in a lower score in this metric. The fuel substitution workpapers were submitted without an EUL and without program

eligibility requirements for a natural gas baseline. There were also cases where the workpaper narrative and data tables did not match, for example with the exhaust hood and water-cooled chiller workpapers. SoCalGas averaged 46 percent of the direct work product points for this metric, slightly falling short of minimum 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. CPUC Staff also expects that when SCE 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 (12.26 out of 12.5)

In 2019, SCE received a workpaper disposition score of 9.84 out of 12.5 for Metric 5 (PA's Responsiveness) prior to the addition of any enhancement points. Of the 86 workpapers submitted or disposed in 2019, SCE was the lead for 61 of the workpapers listed in Attachment C. Leading this workpaper development taxes PA resources, and CPUC Staff acknowledges and commends SCE for taking on this work. SCE has provided excellent leadership in the review period. CPUC Staff and consultants have regularly and productively engaged with SCE and have come to rely on them to provide answers for the electric measure workpapers. SCE averaged 79 percent of the direct work product points for this metric, exceeding minimum expectations for individual workpaper leadership.

SCE 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 workpapers 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 SCE have included a complete cover page since its rollout.

SCE has provided useful analysis and processes. For example, SCE piloted the Third Party Workpaper Inquiry Form, as a method for stakeholders to register concerns about workpapers and have those reviewed more formally. SCE presented to CPUC Staff and consultants a data-rich analysis of workpaper trends and their potential impact on the portfolio savings and cost-effectiveness. SCE also conducted analysis to determine which workpapers may require industry standard practice research based on the contribution to portfolio savings.

While there have been some procedural improvements, SCE has been, along with the PAs as a whole, 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. CPUC Staff expects SCE to volunteer to take leads on high-priority issues.

The consolidated measure workpapers, new third-party contracting process, and implications of Resolution E-4939[11] all set the stage for rethinking workpaper processes. It is incumbent upon SCE 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. SCE's initiative in piloting a mechanism for stakeholders to formally log workpaper complaints is the kind of thinking CPUC Staff encourages.

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 PAs final 2019 savings claims to be filed on May 1, 2020.

In accordance with D.13-09-023, the PAs' 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.

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

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 metric.[12] 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 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.

[12] 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").

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.

A. Custom Metric 1 Scoring Methodology

This metric is related to the timeliness of submittals and a maximum of five 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, & 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, PA-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 SCE staff's positive efforts in these metric areas as discussed earlier. Those initiatives included:

- Taking the statewide lead role in collaborating with CPUC Staff to develop the Statewide Custom Project Guidance Document, Timing Protocol Document, Project Feasibility Study template, and Post-installation report template, among others. SCE has demonstrated extensive leadership for statewide initiatives and CPUC Staff recognize the significant effort they have contributed in 2019.
- Taking initiative to educate stakeholders and provide guidelines on reducing free ridership. SCE has also updated the project influence job aid to simplify this task and CPUC Staff agree this is an improvement in process.
- Started formally integrating the Early Opinion and Standard Practice Evaluation process to early screening process to ensure practices are implemented in accordance with CPUC Staff expectations. CPUC Staff agree this can have an impact reducing time on programs and customers if implemented as part of the early screening process.

Although these efforts may not yet be reflected in project specific disposition scores, CPUC Staff believes recognition of the efforts of SCE' technical and policy review staff is warranted. These activities offer promise to improve SCE' 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, and are summarized here by metric as:

- Metric 1: Timeliness: There were no adder points for this metric.
- Metric 2: Content: SCE was acknowledged for revamping the refrigeration models and its work in developing the fuel substitution workpapers.
- Metric 3: Collaboration: SCE was acknowledged for the collaboration shown in the last year towards the completion of the workpaper consolidation.
- Metric 4: Management: SCE 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: SCE is acknowledged for multiple initiatives to improve processes and update CPUC staff on various topics including establishing the workpaper complaint log, presenting workpaper trends analysis, and preparing ISP analysis.

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 SCE.[13]

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 SCE staff to discuss this memorandum and its final scores by April 30, 2020.

[13] 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%	3.72	11.17	15	30%	4.~~10~~81	~~12.31~~14.42
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 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.	5	10%	2.50	2.50	5	10%	5.00	5.00

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%	2.32	5.79	12.5	25%	3.60	9.00
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%	3.94	9.84	12.5	25%	3.75	9.38
Total		**50**	**100%**		**31.80**	**50**	**100%**		~~40.68~~42.80

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[14])
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**	**25**	SCE complied with SB1131 guidelines for submitting documentation before the 15 business days required. No projects were found to be late and six projects (24%) were submitted early by 5 or more days.
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%**	**12.31**	**25**	In 2019, out of 39 projects submitted and selected for review, 25 projects received dispositions. Out of those 25, ~~4~~ only 1 had a significant deficiency~~ies~~ including ~~failure to account for non-IOU fuel sources, project implemented prior to authorization, and~~ EULs not exceeding simple payback. The remaining deficiency~~ies were~~ was minor, and 13 out of the 25 were able to proceed without exception, while the remaining 12 were allowed to proceed with exceptions as noted indicating high quality submissions.
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%**	**5.00**	**25**	CPUC Staff found that SCE made significant efforts to bring measures, projects, or studies forward for discussion prior to review. In addition, they took an active and engaged lead in statewide collaboration efforts and were champions of several statewide initiatives.
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%**	**9.00**	**25**	CPUC Staff weighted the number of dispositions proceeding without exception against those that required resubmissions or resulted in rejections. Of the 25 projects reviewed, 13 projects (52%) proceeded without exception while the remaining 12 projects were allowed to proceed with exceptions as noted. These findings resulted in higher than expected performance with regards to effective QC of projects prior to submitting for review. Similarly, CPUC Staff found that SCE

[14] The Metric 1 and 2 scores for each of the individual custom projects are included in the final custom workbook which is embedded in Attachment D.

						incorporated elements from the statewide documents into their processes 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 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%**	**9.38**	**25**	SCE Projects reviewed from July 2019 through December 2019 exhibited a slight downward trend in terms of project performance over time. (i.e. project submissions performed more poorly over the course of the 2019 review period). SCE did demonstrate improvement through changes to program documents based on early opinion guidance, and technical policy oversight team updates based on CPUC directions. Both these efforts demonstrate compliance with CPUC policies as well as 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
SCE17HC007	1	High Efficiency PTACHP 24kBtuh	Phase 1 workpaper followed resolution requirements.	1	Yes	Yes	Yes	Yes	Yes
SCE17HC029	3	Residential HVAC Quality Maintenance (QM)	Phase 1 update followed resolution requirements. Submittal was very late in the year. It is preferable to have submittals spaced out through the year.	1	Yes	Yes	Yes	Yes	Yes
SCE17LG103	2	Interior LED Downlight Fixtures	See comments for SCE17LG119	1	Yes	+	Yes	Yes	+
SCE17LG109	2	Exterior LED Lamp Replacement	See comments for SCE17LG119	1	Yes	+	Yes	Yes	+
SCE17LG111	1	LED High-Bay and Low-Bay Fixtures	See comments for SCE17LG120	1	Yes	+	Yes	Yes	+
SCE17LG117	1	LED Tubes	This non-DEER workpaper was updated for the 2019 program cycle with updated cost data, a revised NTG, and a new version of the calculation template.	1	Yes	+	Yes	Yes	+
SCE17LG119	1	LED Residential Exterior Fixtures	This workpaper updated wattage reduction ratios to reflect the CPUC Resolution E-4952 DEER 2019, measure costs, and NTG values. In addition, it added solution codes to match DEER measure wattages. These updates were appropriate and calculated correctly. The operating hours and interactive effects for all impacts were taken from the most applicable and updated DEER data. The workpaper is in conformance with previous direction, including Lamp Savings Methods Disposition (March 2018) and Resolution E-4952 (October 2018).	1	Yes	+	Yes	Yes	+
SCE17LG129	2	LED Candelabra Replacements	See comments for SCE17LG119	1	Yes	+	Yes	Yes	+
SCE17LG130	2	LED globe: <3 Watts	See comments for SCE17LG119	1	Yes	+	Yes	Yes	+
SCE17WP008	2	Com VS Pool Pump	The measure savings was reduced for a replace on burnout measure using revised research that improved characterized pool operation and size. The reduction was substantial but is consistent with the data and calculations. A new accelerated replacement measure was introduced that proposes preponderance of evidence (PoE) data collection. The review looks good.	1	Yes	+	Yes	+	+

SWAP013	1	Residential Cooking Appliance Fuel Substitution.	The WP passes the fuel substitution test - verified by the Ex Ante team. Energy consumption compiled form CASE report. No DEER savings available for this measure. While this was a new type of workpaper, the EUL was not addressed and eligibility requirements for an existing gas baseline were not included in the original version of the workpaper.	1	Yes	+	Yes	-	+
SWAP014	1	Heat Pump Clothes Dryer, Residential, Fuel Substitution.	Energy savings methodology is adopted from Statewide Workpaper 'SWAP003-01' Clothes Dryer, Residential. The WP passes the fuel substitution test. CPUC comments were addressed. While this was a new type of workpaper, the EUL was not addressed and eligibility requirements for an existing gas baseline were not included in the original version of the workpaper.	1	Yes	Yes	Yes	-	+
SWCA001	1	Air Compressor VFD Retrofit	The energy and demand impacts of this measure were derived from base and measure case energy use modeled with AIRMaster+, a tool developed by DOE. Low rigor review was complete without any issues. The work paper addressed previously raised issues. The utilized method is clearly explained.	1	Yes	Yes	Yes	Yes	Yes
SWCR001	1	Anti-Sweat Heater	The measure offerings existed in the 2005 version of Database for Energy Efficient Resources (DEER) as measures D03-230 and D03-231.2 These original measures and energy prototypes were created for the 2005 version of DEER (DEER2005). However, these measures were not updated for the DEER2020 release, and the refrigeration end use in the corresponding DEER Grocery building prototypes has not been updated since DEER2005. Southern California Edison (SCE) updated the refrigeration end use in the DEER prototypes. MASControl3 (released September 30, 2018), an updated version of the measure analysis software for DEER2020, was used to generate energy usage and savings for the Grocery building prototypes. The EX Ante team verified the model inputs and results. This was a significant undertaking and was done well.	1	Yes	+	Yes	Yes	+
SWCR002	1	Low-Temperature Display Case Doors with No Anti-sweat Heaters	See comments for SWCR001	1	Yes	+	Yes	Yes	+
SWCR004	1	EC Motor Retrofit for Walk-in Cooler_Freezer	The review was complete without any issues. The work paper addressed previously raised issues. The utilized method is clearly explained. The measure is also offered as AR (PoE provided).	1	Yes	Yes	Yes	Yes	Yes
SWCR005	1	Refrigerated Storage Auto Closer	The building energy simulation tool DOE-2.2R (via eQuest Refrigeration 3.65) was used to derive base case and measure case UEC.	1	Yes	Yes	Yes	No	Yes
SWCR007	1	Floating Head Pressure Controls, Multiplex	See comments for SWCR001.	1	Yes	+	Yes	No	+
SWCR008	1	Floating Suction Controls, Multiplex	See comments for SWCR001.	1	Yes	+	Yes	No	+
SWCR014	1	High Eff Disp Case	Performance and specifications of 17,921 display cases were extracted from the Refrigeration Equipment database of the U.S. Department of Energy (DOE) Compliance Certification Database to derive the unit energy savings (UES) of this measure. The Ex Ante team found the reported savings values to be reasonable.	1	Yes	Yes	Yes	Yes	Yes
SWCR022	1	Efficient Adiabatic Condenser	SCE submitted a workpaper plan prior to development of the new workpaper. The final workpaper was reviewed without further comment.	1	Yes	+	Yes	+	+
SWFS007	2	Comm Insul Hot Food Hold Cab	The PAs were asked to: formulate and update the workpaper assumptions for baseline & measure case HFHCs, and update eligibility requirements based on revised primary and secondary data. The PAs also revised the idle energy rate for baseline and efficient cabinets based on the average between the FSTC and CEC databases, normalized per cabinet volume. The operating hours for HFHCs were changed for all cabinet volumes from 15 hours/day to 9 hours/day based on a customer survey. The PAs updated eligibility requirements to prevent passive HFHCs with no heating element from qualifying for rebates. Parameter derivation made reproducible and more transparent.	1	Yes	+	Yes	+	+

SWFS012	1	Exhaust Hood Demand Controlled Ventilation, Commercial	QC issues with the data spec and the EAD tables. Several versions of the same tab (ImplementationExAnte, MeasureExAnte, Impact, etc.) in the EAD workbooks. Workpapers were revised and resubmitted.	1	Yes	Yes	Yes	-	Yes
SWHC005	1	Water-Cooled Chiller	CalTF issues were addressed, however the impact EAD table values did not match the Measure Data Spec Worksheet impact values at the time of review. Workpaper needed to be revised and resubmitted	1	Yes	Yes	Yes	-	Yes
SWHC008	1	VFD Retrofit for Central Plant System	eQuest models were used to estimate baseline and proposed energy consumptions. The EX Ante team found the model inputs were entered correctly.	1	Yes	Yes	Yes	Yes	Yes
SWHC012	1	HVAC Occupancy Sensor, Classroom	The electric unit energy savings (UES) of an occupancy sensor-controlled HVAC system for a classroom was derived from building energy use modeled in the eQuest 3.65 building energy simulation software. Prototypes from the Database for Energy Efficient Resources (DEER) 2020 were utilized for the building energy use simulations. The Ex Ante team found the model inputs to be entered correctly.	1	Yes	Yes	Yes	Yes	Yes
SWHC020	1	Air Cooled Chiller	No major issues found in the workpaper content.	1	Yes	Yes	Yes	Yes	Yes
SWHC024	1	Cogged V-Belt for HVAC Fan, Commercial	The EX Ante team found some formatting errors and typos in the originally submitted WP, which hasn't been addressed yet (as of 1/31/2020). UES derived using MASControl3 software. The Ex Ante reviewed the MASControl models and found the inputs to be entered correctly.	1	Yes	Yes	Yes	Yes	Yes
SWHC027	1	Package Terminal Air Conditioner or Heat Pump, Under 24 kBtu/h	Savings extracted from DEER 2005, which was last updated in 2014. To account for change in peak kW from 2005 DEER (2 to 5 pm) to 2016 title 24 (4 to 9 pm), a scaling factor has been applied. Weight of 0.3 is assigned for 7 to 15 kBtuh PTACs and 0.7 for >15 kBtuh PTAC.	1	Yes	+	Yes	No	+
SWHC029	1	Fan Controller for Air Conditioner, Residential	SCE submitted a workpaper plan prior to workpaper development. Only minor issues found in the text of the workpaper, such as incorrectly listing measure offering IDs from a different workpaper/measure.	1	Yes	Yes	Yes	Yes	+
SWHC038	1	Brushless Fan Motor Replacement, Residential	eQuest models were used to calculate energy savings. The EX Ante team reviewed the models and found that the model inputs were entered correctly.	1	Yes	Yes	Yes	Yes	Yes
SWHC039	1	Smart Thermostat, Residential (Electric)	SCE supported the HVAC calculations for the SCT in the resubmission and engaged with interested stakeholders and coordinated with SCG.	1	Yes	+	Yes	Yes	+
SWHC041	1	Software Controlled SRM	New workpaper. The unit energy savings (UES) of this measure were derived as the difference of baseline and measure case unit energy consumption (UEC) derived from simulations with DOE-2.3/ eQUEST 3.65 energy modeling software. The Ex Ante team verified the model inputs and assumptions.	1	Yes	+	Yes	Yes	+
SWHC042	1	Evaporative Pre-Cooler System and Controls for Packaged Hvac Unit	New workpaper. SCE worked with the CPUC team to address questions and concerns in the workpaper development process.	1	Yes	+	Yes	Yes	+
SWHC044	1	Ductless HVAC Residential Fuel Substitution	The electric unit energy savings (UES) and demand reduction were derived from unit energy consumption (UEC) estimated using eQUEST version 3.65 energy modeling software. The WP passes the fuel substitution test. EX Ante team verified that the inputs are entered correctly in the fuel substitution calculator.	1	Yes	+	Yes	Yes	+
SWHC045	1	Heat Pump HVAC Residential Fuel Substitution	The unit energy savings (UES) of this measure were derived as the difference of baseline and measure case unit energy consumption (UEC); the UEC were derived from simulations with DOE-2.3/ eQuest 3.65 energy modeling software. Prototypes from the Database for Energy Efficient Resources (DEER) 2020 were used for the simulations. The Ex Ante team verified that the inputs in the duel substitution test calculator are entered correctly and that the WP passes the fuel substitution test.	1	Yes	+	Yes	No	+

SWHC046	1	Com Heat Pump HVAC Fuel Substitution	The unit energy savings (UES) of this measure were derived as the difference of baseline and measure case unit energy consumption (UEC) derived from simulations with DOE-2.3/ eQUEST 3.65 energy modeling software. Prototypes from the Database for Energy Efficient Resources (DEER) 2020 were used for the simulations. The Ex Ante team verified that the wp passes fuel substitution test and that the inputs in the calculator were entered correctly.	1	Yes	+	Yes	No	+
SWLG009	1	LED Tube	This workpaper was an adoption of the previous SCE approved workpaper and was reviewed without comment.	1	Yes	Yes	Yes	Yes	Yes
SWPR004	1	Circulating Block Heater	The unit energy savings (UES) of this measure are based on field monitoring data from the Bonneville Power Administration (BPA). The Ex Ante team found the savings calculation to be reasonable.	1	Yes	Yes	Yes	Yes	Yes
SWRE002	1	VSD for Pool and Spa Pump	This workpaper was an adoption of the previous SCE approved workpaper and was reviewed without comment.	1	Yes	Yes	Yes	Yes	Yes
SWSV006	1	Refrigerant Charge, Residential	The electric unit energy savings (UES) of refrigerant charge adjustments of residential air conditioning (AC) units were derived from impacts in the Database of Energy Efficient Resources (DEER). All measures were updated in DEER2020. The results were reported in the Remote Ex-Ante Database Interface (READI) tool v2.5.1. EUL, as described in the WP, was obtained from the 2013 disposition. The EUL as per the 2013 disposition is 5 years. However, the WP reports EUL of 3 years. This is because an EUL update was made in DEER resolution E-4952.	1	Yes	Yes	Yes	Yes	Yes
SWSV007	1	Condenser Coil Cleaning, Residential	UES is derived as a function of the refrigerant charge adjustment measure in DEER2020. As per 2013 disposition, non-RCA measure savings = 0.25*DEER values; Condenser coil cleaning accounts for 50% of non-RCA measure. Therefore, condenser coil cleaning savings = 0.125*DEER values. Uses correct EUL from DEER resolution E-4952. There were a few formatting errors and typos in the original WP, which was addressed in the revised WP.	1	Yes	Yes	Yes	Yes	Yes
SWSV008	1	Evaporator Coil Cleaning, Residential	UES is derived as a function of the refrigerant charge adjustment measure in DEER2020. As per 2013 disposition, non-RCA measure savings = 0.25*DEER values; Evaporator coil cleaning accounts for 25% of non-RCA measure. Therefore, evaporator coil cleaning savings = 0.0625*DEER values. Uses correct EUL from DEER resolution E-4952. There were a few formatting errors and typos in the original WP, which was addressed in the revised WP.	1	Yes	Yes	Yes	Yes	Yes
SWSV009	1	Air-flow Adjustment, Residential	UES is derived as a function of the refrigerant charge adjustment measure in DEER2020. As per 2013 disposition, non-RCA measure savings = 0.25*DEER values; Air flow adjustment accounts for 25% of non-RCA measure. Therefore, air flow adjustment savings = 0.0625*DEER values. Uses correct EUL from DEER resolution E-4952. There were a few formatting issues and typos in the originally submitted WP, which were addressed promptly.	1	Yes	Yes	Yes	Yes	Yes
SWWB006	1	High Performance Crawlspace	New workpaper. SCE submitted a workpaper plan prior to workpaper submission. The baseline is unclear in the workpaper plan and is unclear in the workpaper itself. Additional discrepancies include and incomplete EAD table worksheet, and internal inconsistencies in the workpaper document.	1	Yes	+	Yes	Yes	+
SWWH014	1	Heat Pump Water Heater	Should have realized that DEER IDs need to be included in EAD tables. This caused a resubmission in July. Positive: Participated in conversations regarding revisions to water heater calculator. Took the lead on gathering electric water heater data with SCG.	1	Yes	-	Yes	-	+
SWWH025	1	Residential Heat Pump Water Heater Fuel Substitution	Ex ante team verified that the WP passes the fuel substitution test. Energy use and savings were derived using the DEER water heater calculator tool version 3.4, a macro-enabled Excel workbook developed by consultants of the California Public Utilities Commission (CPUC) Energy Division to standardize the inputs and savings calculations for water heating measures. However, the original workpaper did not include eligibility requirements for the gas baseline. The wp addresses the comments made by CPUC.	1	Yes	+	Yes	-	+

Workpaper Submissions

WP ID	Rev	Title	Submission Status: EAR Team Comments
SWCR010	1	Bare Suction Pipe Insulation	Detailed review – resubmit - scored in detailed review section
SWFS012	1	Exhaust Hood Demand Controlled Ventilation, Commercial	Detailed review – resubmit - scored in detailed review section
SWWH014	1	Heat Pump Water Heater	Detailed review – resubmit - scored in detailed review section
SWHC005	1	Water-Cooled Chiller	Detailed review – resubmit - scored in detailed review section
SWHC029	1	Fan Controller for Air Conditioner, Residential	Detailed review – resubmit - scored in detailed review section
SWHC030	1	Whole House Fan, Residential	Detailed review – resubmit - scored in detailed review section
SWHC020	1	Air Cooled Chiller	Detailed review – resubmit - scored in detailed review section
SWWB006	1	High Performance Crawlspace	Detailed review – resubmit - scored in detailed review section
SWCR022	1	Efficient Adiabatic Condenser	Detailed review – resubmit - scored in detailed review section
SWHC042	1	Evaporative Pre-Cooler System and Controls for Packaged Hvac Unit	Detailed review – resubmit - scored in detailed review section
SCE17LG111	1	LED High-Bay and Low-Bay Fixtures	Detailed review – resubmit - scored in detailed review section
SCE17LG134	1	LED Outdoor Area and Street Lighting	Detailed review – resubmit - scored in detailed review section
SWLG009	1	LED Tube	Detailed review – resubmit - scored in detailed review section
SCE17HC054	1	Residential Smart Communicating Thermostat	Detailed review – resubmit - scored in detailed review section
SWHC039	1	Smart Thermostat, Residential (Electric)	Detailed review – resubmit - scored in detailed review section
SWHC039	2	Smart Thermostat, Residential (Gas)	Detailed review – resubmit - scored in detailed review section
SWFS007	2	Comm Insul Hot Food Hold Cab	Detailed review – resubmit - scored in detailed review section
SWHC044	1	Ductless HVAC Residential Fuel Substitution	Detailed review – resubmit - scored in detailed review section
SWHC045	1	Heat Pump HVAC Residential Fuel Substitution	Detailed review – resubmit - scored in detailed review section
SWHC046	1	Com Heat Pump HVAC Fuel Substitution	Detailed review – resubmit - scored in detailed review section
SWHC041	1	Software Controlled SRM	Detailed review – resubmit - scored in detailed review section
SWAP013	1	Residential Cooking Appliance Fuel Substitution	Detailed review – resubmit - scored in detailed review section
SWAP014	1	Heat Pump Clothes Dryer, Residential, Fuel Substitution	Detailed review – resubmit - scored in detailed review section
SWWH025	1	Residential Heat Pump Water Heater Fuel Substitution	Detailed review – resubmit - scored in detailed review section
SWCA001	1	Air Compressor VFD Retrofit	Detailed review – resubmit - scored in detailed review section
SWPR004	1	Circulating Block Heater	Detailed review – resubmit - scored in detailed review section
SWRE002	1	VSD for Pool and Spa Pump	Detailed review – resubmit - scored in detailed review section

SWCR002	1	Low-temperature Display Case Doors with No Anti-sweat Heaters	Detailed review – resubmit - scored in detailed review section		
SWCR005	1	Refrigerated Storage Auto Closer	Detailed review – resubmit - scored in detailed review section		
SWCR007	1	Floating Head Pressure Controls, Multiplex	Detailed review – resubmit - scored in detailed review section		
SWCR008	1	Floating Suction Controls, Multiplex	Detailed review – resubmit - scored in detailed review section		
SWCR014	1	High Eff Disp Case	Detailed review – resubmit - scored in detailed review section		
SWCR001	1	Anti-Sweat Heater	Detailed review – resubmit - scored in detailed review section		
SWHC008	1	VFD Retrofit for Central Plant System	Detailed review – resubmit - scored in detailed review section		
SWHC038	1	Brushless Fan Motor Replacement, Residential	Detailed review – resubmit - scored in detailed review section		
SWHC024	1	Cogged V-Belt for HVAC Fan, Commercial	Detailed review – resubmit - scored in detailed review section		
SWHC012	1	HVAC Occupancy Sensor, Classroom	Detailed review – resubmit - scored in detailed review section		
SWHC027	1	Package Terminal Air Conditioner or Heat Pump, Under 24 kBtu/h	Detailed review – resubmit - scored in detailed review section		
SWSV006	1	Refrigerant Charge, Residential	Detailed review – resubmit - scored in detailed review section		
SWSV007	1	Condenser Coil Cleaning, Residential	Detailed review – resubmit - scored in detailed review section		
SWSV008	1	Evaporator Coil Cleaning, Residential	Detailed review – resubmit - scored in detailed review section		
SWSV009	1	Air-flow Adjustment, Residential	Detailed review – resubmit - scored in detailed review section		
SWCR004	1	EC Motor Retrofit for Walk-in Cooler_Freeze	Detailed review – resubmit - scored in detailed review section		
SCE17LG119	1	LED Residential Exterior Fixtures	Detailed review – resubmit - scored in detailed review section		
SCE17LG129	2	LED Candelabra Replacements	Detailed review – resubmit - scored in detailed review section		
SCE17LG130	2	LED globe: <3 Watts	Detailed review – resubmit - scored in detailed review section		
SCE17LG109	2	Exterior LED Lamp Replacement	Detailed review – resubmit - scored in detailed review section		
SCE17LG103	2	Interior LED Downlight Fixtures	Detailed review – resubmit - scored in detailed review section		
SWFS007	1	Comm Insul Hot Food Hold Cab	Detailed review – resubmit - scored in detailed review section		
SCE17WP008	2	Com VS Pool Pump	Detailed review – resubmit - scored in detailed review section		
SWWH014	1	Heat Pump Water Heater	Detailed review – resubmit - scored in detailed review section		
SCE17HC007	1	High Efficiency PTACHP 24kBtuh	Detailed review – resubmit - scored in detailed review section		
SWCA001	1	Air Compressor VFD Retrofit	Detailed review – resubmit - scored in detailed review section		
SCE17HC029	3	Residential HVAC Quality Maintenance (QM)	Detailed review – resubmit - scored in detailed review section		
SCE17LG117	1	LED Tubes	Detailed review – resubmit - scored in detailed review section		
SCE17HC039	2	VFD Central Plant Final Package	Review complete - interim approval		
SCE17HC060	1	Classroom HVAC Occupancy Sensor Final	Review complete - interim approval		
SCE17LG119	1	LED Residential Exterior Fixtures	Review complete - interim approval		
SCE17LG129	2	LED Candelabra Replacements	Review complete - interim approval		
SCE17LG130	2	LED globe: <3 Watts	Review complete - interim approval		

SCE17LG131	3	LED R-BR: <11 Watts	Review complete - interim approval		
SCE17LG109	2	Exterior LED Lamp Replacement	Review complete - interim approval		
SCE17LG117	1	LED Tubes	Review complete - interim approval		
SCE17HC052	0	Efficient Fan Controller for Res AC	Review complete - interim approval		
SCE17WP004	2	Faucet Aerators and Low Flow Showerheads	Review complete - interim approval		
SWFS010	1	Comm Hand Wrap Machine	Review complete - interim approval		
SWFS009	1	Comm Electric Deck Oven	Review complete - interim approval		
SWFS007	1	Comm Insulated Hot Food Hold Cab	Not approved		
SCE17RN003	2	Insulation of Bare Refrigeration Suction Lines	Review complete - interim approval		
SCE17LG103	2	Interior LED Downlight Fixtures	Review complete - interim approval		
SCE17CS005	1	Beverage Merchandise Controller	Review complete - interim approval		
SCE17CC012	1	Commercial Electric Deck Oven	Review complete - interim approval		
SCE17CC018	0	Undercounter Commercial Dishwasher	Review complete - interim approval		
SCE17HC028	1	BFM ResCentralAC	Review complete - interim approval		
SCE17WP008	2	Com VS Pool Pump	Review complete - interim approval		
SCE17HC029	3	Residential HVAC Quality Maintenance (QM)	Review complete - interim approval		
PGE3PHVC151	1	Economizer Repair 2018	Review complete - interim approval		
PGE3PHVC151	2	Economizer Repair 2019	Review complete - interim approval		
PGE3PHVC152	2	Economizer Control 2019	Review complete - interim approval		
PGE3PHVC152	1	Economizer Control 2018	Review complete - interim approval		
PGE3PHVC156	1	Condenser Coil Cleaning 2018	Review complete - interim approval		
PGE3PHVC156	2	Condenser Coil Cleaning 2019	Review complete - interim approval		
PGE3PHVC157	2	Unoccupied Supply Fan Control 2019	Review complete - interim approval		
PGE3PHVC157	1	Unoccupied Supply Fan Control 2018	Review complete - interim approval		
PGE3PHVC158	1	Evaporator Coil Cleaning 2018	Review complete - interim approval		
PGE3PHVC158	2	Evaporator Coil Cleaning 2019	Review complete - interim approval		
PGE3PHVC160	1	Refrigerant Charge Adjustment 2018	Review complete - interim approval		
PGE3PHVC160	2	Refrigerant Charge Adjustment 2019	Review complete - interim approval		
SCE17HC045	0	Enhanced Ventilation and VFD 2019	Review complete - interim approval		
SCE17HC061	1	Demand Controlled Ventilation 2019	Review complete - interim approval		
SWAP011	1	Vending and Beverage Merchandise Controller	Review complete - interim approval		
SWCR010	1	Bare Suction Pipe Insulation	Review complete - interim approval		
SWFS012	1	Exhaust Hood DCV	Review complete - interim approval		

SCE17PR005	1	Air Compressor VFD	Review complete - interim approval	
SCE17HC007	1	High Efficiency PTACHP 24kBtuh	Review complete - interim approval	
SCE17HC013	1	Direct Evaporative Coolers	Review complete - interim approval	
SWWH014	1	Heat Pump Water Heater	Review complete - interim approval	
SCE13HC050	4	VSD on HVAC Fan Control	Review complete - interim approval	
SWCA001	1	Air Compressor VFD Retrofit	Review complete - interim approval	
SWPR004	1	Circulating Block Heater	Review complete - interim approval	

Process Adder	ESPI Metrics					
	Weight	1	2	3	4	5
SCE led the development of revamping the refrigeration building prototypes and associated modeling. The work scope included an assessment of standard practice.	1	No	+	No	No	No
SCE has shown forward thinking in its piloting of a third party workpaper complaint log (Third Party Workpaper Inquiry Form).	1	No	No	No	No	Yes
SCE presented to the Staff and consultants a data-rich analysis of workpaper trends and their potential impact on the portfolio savings and cost-effectiveness.	1	No	No	No	No	Yes
SCE proactively conducted a review of its deemed energy efficiency measures with the goal of prioritizing measures that warrant industry standard practice baseline assessments and need industry standard practice studies.	1	No	No	No	No	Yes
SCE played a leadership role in developing fuel substitution energy efficiency measures guidance and tools including technical guidelines, establishing policy clarifications, defining key “ecosystem” impacts, and training several energy efficiency stakeholders to support the success of fuel substitution measures in 2020. SCE team completed the work in a short period of time.	1	No	+	No	No	no
SCE in collaboration with the other SCEs, has managed the revision and/or development of a high volume of workpapers during the review period. The CPUC acknowledges SCE’s role in making this submission cycle successful and timely.	1	No	No	+	No	no
SCE partnered with the Staff and other PAs to resolve common issues and implement process improvements. Examples of these include: Development of a solution for implementing the new measure application types (MAT), implementation of workpaper cover page, 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
SCE collaborated with the other SCEs and the Staff to present a Third Party Workpaper Q&A webinar on April 11.	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	4.~~10~~81	5.00	3.60	3.75	
Review Process Score Enhancements	Technical & Policy QC Increase	0.00	0.00	1.00	1.00	1.00	
	Implementation Increase	0.00	0.00	0.00	0.00	0.00	
Total Score	Adjusted Final Metric Score (1-5)	5.00	4.~~10~~81	5.00	4.60	4.75	Total Points
	Adjusted Metric Points	5.00	~~12.31~~14.42	5.00	11.50	11.88	~~45.68~~47.80

2018 Annual Custom Ratings		Metric 1	Metric 2	Metric 3	Metric 4	Metric 5	
Direct Work Product Review Score	Disposition Score (1-5)	5.00	5.00	5.00	5.00	5.00	
Review Process Score Enhancements	Technical & Policy QC Increase	0.00	0.00	0.00	1.00	1.50	
	Implementation Increase	0.00	0.00	0.00	0.00	1.00	
Total Score	Adjusted Final Metric Score (1-5)	5.00	5.00	5.00	5.00	5.00	Total Points
	Adjusted Metric Points	5.00	15.00	5.00	12.50	12.50	50.00

SCE-CustomTables.xlsx This embedded workbook contains all of the SCE Custom Scoring tables

Workpaper Scoring

2019 Annual Workpaper Ratings		Metric 1	Metric 2	Metric 3	Metric 4	Metric 5	
Direct Workproduct Review Score	SCE "-"	0%	2%	0%	15%	0%	
	SCE "+"	0%	51%	0%	7%	57%	
	SCE "Yes"	100%	47%	100%	78%	43%	
	Dispositions Score %	**50%**	**74%**	**50%**	**46%**	**79%**	
	Dispositions Score	**2.50**	**3.72**	**2.50**	**2.32**	**3.94**	
Review Process Score Enhancements	SCE "-"		0%	0%	0%	0%	
	SCE "+"		100%	100%	0%	0%	
	SCE "Yes"		0%	0%	100%	100%	
	Process Score %	**0%**	**100%**	**100%**	**50%**	**50%**	
	Process Increase Score	**0.00**	**5.00**	**5.00**	**2.50**	**2.50**	
	Process Increase Weight	**0.50**	**0.50**	**0.50**	**0.50**	**0.50**	
	Process Increase Wtd Score	**0.00**	**2.50**	**2.50**	**1.25**	**1.25**	
Total Score	**Final Metric Score (1-5)**	**2.50**	**5.00**	**5.00**	**3.57**	**5.00**	**Total Points**
	Metric Points with Weighting	**2.50**	**15.00**	**5.00**	**8.92**	**12.50**	**43.92**

2018 Annual Workpaper Ratings		Metric 1	Metric 2	Metric 3	Metric 4	Metric 5	
Direct Workproduct Review Score	SCE "-"	62%	20%	0%	86%	15%	
	SCE "+"	5%	40%	0%	0%	85%	
	SCE "Yes"	33%	40%	100%	14%	0%	
	Dispositions Score %	**21%**	**60%**	**50%**	**7%**	**85%**	
	Dispositions Score	**1.07**	**3.00**	**2.50**	**0.36**	**4.23**	
Review Process Score Enhancements	SCE "-"	33%	0%	0%	100%	0%	
	SCE "+"	33%	0%	50%	0%	100%	
	SCE "Yes"	33%	0%	50%	0%	0%	
	Process Score %	**50%**	**0%**	**75%**	**0%**	**100%**	
	Process Increase Score	**2.50**	**0.00**	**3.75**	**0.00**	**5.00**	
	Process Increase Weight	**0.50**	**0.50**	**0.50**	**0.50**	**0.50**	
	Process Increase Wtd Score	**1.25**	**0.00**	**1.88**	**0.00**	**2.50**	
Total Score	**Final Metric Score (1-5)**	**2.32**	**3.00**	**4.38**	**1.00**	**5.00**	**Total Points**
	Metric Points with Weighting	**2.32**	**9.00**	**4.38**	**2.50**	**12.50**	**30.70**

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 % score into a numeric value of up to five by directly applying the % 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.