

**PUBLIC UTILITIES COMMISSION**

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Date: March 26, 2018

To: Southern California Gas (SCG)

From: Peter Lai, CPUC

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

Subject: Final 2017 Efficiency Savings and Performance Incentive (ESPI) Ex Ante Review  
Performance Scores

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## I. Summary of 2017 ESPI Scores- Custom Projects and Workpapers

The scores<sup>1</sup> contained in this memo are final, and Southern California Gas Company (SCG) shall use the total final ex ante review performance points from the table below together with the weighting<sup>2</sup> for each category to calculate the 2017 ESPI ex ante review component award. Breakdown of SCG’s 2017 ESPI score of 46.34/ 100 for workpapers and custom projects is shown below in Table 1. SCG’s 2017 total points have not improved over its 2016 total points of 46.63.

Table 1: 2017 ESPI Scoring for Workpapers and Custom Projects

SCG 2017 ESPI Ex-Ante Review Performance Scores and Points		Workpapers				Custom			
Metric	Metric Area of Scoring	2017 Score	Metric Weight Factor	2017 Points	Max Points	2017 Score	Metric Weight Factor	2017 Points	Max Points
1	Timing and Timeliness of Submittals	5.00	10%	5.00	5	3.32	10%	3.32	5
2	Content, Completeness, and Quality of Submittals	1.00	30%	3.00	15	3.19	30%	9.57	15
3	Proactive Initiative of Collaboration	3.50	10%	3.50	5	1.00	10%	1.00	5
4	Due Diligence and Quality Assurance/Quality Control Effectiveness	2.09	25%	5.23	12.5	2.79	25%	6.98	12.5
5	Responsiveness to Needs for Process and Program Improvements	1.25	25%	3.13	12.5	2.25	25%	5.63	12.5
<b>Total</b>				<b>19.85</b>	<b>50</b>			<b>26.49</b>	<b>50</b>

The metric scoring area descriptions are expanded in [Attachment A](#). The final category scores are explained in more detail below as well as in Attachments B through D to this memo. The weighting for the custom and deemed savings categories will be published by Commission staff in June 2018 after reviewing the utilities’ final 2017 savings claims filed on May 1, 2018.

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.

## II. Commission Staff Findings 2017 Ex Ante Activities

### A. Custom Projects Review Overview

#### 1. Summary of 2017 Achievements

SCG’s custom project scores have improved compared to last year by 4.69 points from 21.80 in 2016 to 26.49 in 2017. SCG continues to demonstrate efforts to improve its performance. Commission staff’s observations include:

- The commitment of SCG’s program administration staff to improve its internal quality assurance

<sup>1</sup> Pursuant to Decision (D).13-09-023, D.15-10-028 and D16-08-019, Commission staff and consultants completed the 2017 Efficiency Savings and Performance Incentive (ESPI) mechanism ex ante review performance scoring as prescribed in Table 3 of D.16-08-019. D.16-08-019 established a consolidation of categories of metrics on which the utilities are evaluated and further directed in Ordering Paragraph 19 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”.

<sup>2</sup> D16-08-019 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 Commission staff has compiled their final 2017 savings claims and published for each utility the weights for the custom and deemed categories.

and quality control (QA/QC) processes.

- SCG staff continues to collaborate, hold productive discussions to clarify various Commission staff guidance.
- SCG actively and constructively participated in the Track 2 Working Group activities. SCG took a leading role in contracting a facilitator and a technical writing team for the Track 2 Working Group activities.
- SCG has implemented an internal early project review process for projects pre-screening.
- SCG coordinated with other program administrators (PA) to produce consistent documentation for projects that had measures expected efficiency savings in natural gas supplied by SCG and electricity supplied by another IOU.
- SCG has provided Commission staff a list of activities that demonstrate its commitment to improve its QA/QC processes. Some of the efforts listed include training for technical reviewers, engineers, implementers and program managers, and processes to improve communications with stakeholders.
- Commission staff are aware that all four IOUs are now working together to collaboratively develop statewide standardized documentation and processes for custom projects. Commission staff applaud this effort and expect that it will result in improved Statewide portfolio performance in the coming years.

## **2. Summary of Areas Requiring Improvement**

Areas in need of improvement include similar concerns that Commission staff have highlighted in prior years:

- Systematic errors in a widely used statewide calculation tool.
- Inadequate calculation methodology and analysis approaches.
- Insufficient measurement and verification plans.
- Incomplete documentation in project submittals.
- Lack of evidence of program influence in project documentation.

In some cases, the total number of action items<sup>3</sup> identified in a specific issue area may seem low even though that issue area remains a significant concern and requires much improved action by SCG. For instance, as shown in Table 2, only a small percentage of the issues are associated with the “Issues Related to Net Impacts”; however these areas still require attention from SCG.

## **B. Deemed Workpapers Review Overview**

### **1. Summary of 2017 Achievements**

Commission staff note that SCG continues to demonstrate efforts to improve its performance. Commission Staff’s observations include:

- SCG met deadlines for workpaper submissions in 2017, exceeding Commission Staff’s expectations.
- SCG initiated a study to further identify industry standard Practice (ISP) for commercial pool covers.

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<sup>3</sup> “Action items” are directives for corrective actions issued by Commission staff to the program administrators relative to the review of a particular custom project energy efficiency program application.

- SCG proactively undertook efforts to revise water heater calculation methods to reflect the change in standards from Energy Factor to Uniform Energy Factor.
- Commission staff are aware that all four IOUs are now working together to collaboratively develop statewide standardized documentation and processes for several deemed measures / work papers. Commission staff applaud this effort and expect that it will result in improved Statewide portfolio performance in the coming years.

## **2. Summary of Areas Requiring Improvement**

The workpaper scores have decreased compared to last year by 4.98 points from 24.83 points in 2016 to 19.85 points in 2017. Areas in need of improvement include similar concerns that Commission staff have highlighted in prior years. Commission Staff's concerns are described in more detail below and include:

- Non-responsive to Commission staff preliminary reviews.
- No follow through with the agreed upon customer tracking requirements included in the final disposition for the smart thermostat workpaper, WPSCGREHC160624A.

## **III. Discussion**

### **A. Custom Projects Ex Ante Review Discussion**

Custom project energy efficiency program applications are reviewed by Commission staff. The review findings and directions to the program administrators are presented in documents referred to as dispositions. In early 2016, Commission staff revised the custom project ex ante review disposition template to include a categorization of the actions that staff requires the utility to address for the project under review. Table 2 summarizes the 40 action items identified across 8 dispositions issued between January 1, 2017 and December 31, 2017. The detailed action items for each project are included in [Attachment B1](#).

Commission staff acknowledges that the projects were not selected at random. Our selections drew upon the type of projects that we had found issues in the past or expected to find deficient for various reasons. We also selected projects to determine whether the utility has corrected issues from similar project types that Commission staff reviews identified in the past.

Table 2: Summary of Categorized Action Items for Custom Projects

Issue Area	Action Category	Quantity of Issues Reviewed	Percent of Total
<b>Issues Related to Gross Savings Impacts</b>	Analysis Assumptions	5	12.5%
	Calculation Method	0	0.0%
	Calculation Tool	0	0.0%
	M&V Plan	3	7.5%
	Revise to Match CPUC Savings Estimate	1	2.5%
	<b>Subtotals</b>	<b>9</b>	<b>22.5%</b>
<b>Process, Policy, Program Rules</b>	Baseline	3	7.5%
	CPUC Policy	7	17.5%
	Did Not Follow Previous CPUC Guidance	1	2.5%
	Eligibility	6	15.0%
	ER Preponderance of Evidence	0	0.0%
	EUL/RUL	3	7.5%
	Fuel Switching	0	0.0%
	Incentive Calculation	1	2.5%
	Maintenance	0	0.0%
	Measure Cost	1	2.5%
	Measure Type	0	0.0%
	PA Program Rules	0	0.0%
	Repair	0	0.0%
	Self-Generation	0	0.0%
		<b>Subtotals</b>	<b>22</b>
<b>Documentation Issues</b>	Inadequate Response to Precious EAR	0	0.0%
	Missing Documents	0	0.0%
	Missing Required Information	4	10.0%
	Project Scope Unclear	0	0.0%
		<b>Subtotals</b>	<b>4</b>
<b>Issues Related to Net Impacts</b>	NTG	1	2.5%
	Program Influence	4	10.0%
		<b>Subtotals</b>	<b>5</b>
<b>Other Issues</b>		<b>0</b>	<b>0.0%</b>
	<b>Grand Total</b>	<b>40</b>	<b>100.0%</b>

### 1. Issues Related to Gross Savings Impacts

In 2017 more than 20% of issues identified (9 total actions) in custom project dispositions were related to gross savings impacts. Four (4) of the eight (8) dispositions issued in 2017 had comments associated with these issues. As highlighted in the 2016 ESPI memorandum, calculation methodologies and M&V plans continue to be an area of weakness that has a significant impact on the reliability of the ex ante savings estimates. Commission staff observes that not providing a complete and concise description of a calculation methodology and the inability to provide an accurate savings estimate remains a weakness for many complex projects. SCG must undertake a long-term and ongoing effort to increase the technical skills of its project developers and QA/QC reviewers to ensure that the ex ante savings estimates are accurate and reliable. In 2017, the following CPUC project ID numbers had issues related

to gross savings impacts: 0120-1, 0120-2, 0169, and 0176. Please refer to [Attachment B1](#), for a detailed description of the issues identified for each project.

## **2. Process, Policy, Program Rules**

In 2017, 55% of issues identified (22 total actions) in custom project dispositions were related to Process, Policy, or Program Rules. Seven (7) of the eight (8) dispositions issued had comments associated with these issues. The actions were the result of a wide variety of issues ranging from non-compliance with Commission policy to eligibility issues to baseline issues. In 2017, the following CPUC project ID numbers had issues related to Process, Policy, or Program Rules: X530, 0107, 0120-1, 0120-2, 0129, 0130, and 0176. Please refer to [Attachment B1](#), for a detailed description of the issues identified for each project.

## **3. Documentation Issues**

In 2017, 10% of issues identified (4 total actions) in custom project dispositions were related to incomplete or insufficient project documentation. Two (2) of the eight (8) dispositions issued had comments associated with these issues. SCG basically did not provide the required information in documentation package submittals. Commission staff created a “Ready for Review” checklist in 2015, that SCG has been directed to complete when submitting project documentation packages for CPUC staff selected projects. In some instances the checklist appears to be used on a “pro forma” basis, and although items are checked off, they are not actually provided. For example, for CPUC project ID 120-1 the documentation submitted by SCG did not provide the pre-existing equipment vintage and condition or a description of the customer’s maintenance practice and schedule, This is a required item on the checklist for accelerated replacement measures. SCG needs to pay closer attention to the details when preparing project documentation packages. Missing information results in data requests and creates delays in completing project reviews. In 2017 the CPUC project ID numbers had documentation issues include: 120-1, and 0169. Please refer to [Attachment B1](#), for a detailed description of the issues identified for each project.

## **4. Issues Related to Net Impacts**

In 2017 more than 12 % of issues identified (5 total actions) in custom project dispositions were related to net savings impacts. Five (5) of the eight (8) dispositions issued had comments associated with these issues. The actions were primarily associated with a lack of documentation supporting program influence. As noted in the 2016 ESPI memo, issues related to program influence directly affect the scoring on ESPI Metrics 2, 4, and 5. SCG must make a more substantial effort to provide documentation that demonstrates what the customer was planning to do prior to the energy efficiency program intervened in the project. The documentation needs to demonstrate how the program enabled the customer to adopt an alternative action that improves final efficiency and provides incremental savings benefits to ratepayers over what the customer was otherwise planning to implement.

Net impacts should be based on real and convincing evidence of program influence included in the documentation submitted for every project. The evidence of program influence should outweigh evidence that suggests the customer would have chosen the efficient alternative absent the program information or financial support. It is important that SCG make significant progress in reducing free ridership since as of January 1, 2018 all portfolio goals are based on net savings impacts. In 2017 the following CPUC project ID numbers were found to have issues related to net savings impacts: X530, 0120-1, 0129, 0130, and 0169. Please refer to [Attachment B1](#), for a detailed description of the issues identified for each project.

## **5. Contracting issue- Third-Party Implementer Contract Structure:**

The 2016 ESPI memorandum noted several issues with third party contracts including some projects that seemed to have unexpectedly large performance payment rates, a lack of meaningful third-party performance payment caps, and a contract structure based solely on first year claimed gross savings impacts with no consideration for net impacts. Pursuit of large performance payments can create an environment in which implementers maximize the ex ante savings estimates at the expense of compliance with Commission policy, appropriate and accurate assessment of program influence, measure eligibility or classification and savings impacts. The upcoming third party contract solicitation must address these issues.

## **6. Potential Reviewer-Program Implementer Conflicts of Interest Issue:**

Commission staff understands that SCG currently does not heavily rely on third party technical reviewers and third party implementers for custom projects. However as the Commission directed the implementation work shifts to third parties, Commission staff have concern that some third-party implementer firms also perform technical review of program applications. Commission staff believes, that a conflict of interest may exist for several technical review contractors that are also third-party implementers for other PA's, and that SCG may also utilize these firms for its custom programs. While Commission staff understand that implementers do not in most cases review projects which their firm is also implementing, there is an inherent conflict related to being on the both the enforcement and user side of rules and policies that has contributed to the lack of progress on many of the issues discussed above. CPUC Staff expect this issue to be resolved on a State wide basis and require SCG to be a party to the solution.

## **B. Deemed Workpapers Ex Ante Review Discussion**

The 2017 SCG's deemed program continued at a similar pace to 2016. Partially due to the small size of the SCG workpaper portfolio compared with other PAs, deemed ex ante review was limited to occasional check-in meetings and the review of two phase 2 workpapers. The comments below are organized by the 5 metric areas of scoring. The detailed scores for each metric are included in [Attachment C](#).

### **1. Timeliness**

SCG generally follows direction regarding timelines for submission of workpapers. Furthermore, SCG is proactive in providing early information on proposed workpapers prior to formal submission of the workpaper. In many cases, Commission staff have requested additional information from SCG on all reviewed workpapers; however, these quality issues are described below, under other ESPI metrics. SCG obviously sets a high priority on meeting the scheduled deadlines and was successful in this area in 2017.

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

Unfortunately, Commission staff's feedback on this ESPI metric is largely negative. SCG needs to greatly improve the quality and completeness of their workpaper submissions. In 2017, the Commission staff performed preliminary reviews on two workpapers and then waived review of the revised workpaper. For purposes of ESPI scoring, Commission staff briefly reviewed the revised workpapers along with SCG's responses to the preliminary review. It is clear that the workpaper revisions were largely non-responsive to the 2017 preliminary reviews.

First, Commission staff pointed out that the claim of accelerated replacement for Commercial Low Flow Showerheads had two requirements: that actual existing conditions be identified and that a preponderance of evidence support that SCG's program is causing the accelerated replacement. SCG's response was that, via a direct install contractor, only older, high flow, showerheads would be replaced. This is not adequate support and also does not meet the requirements of Commission Resolution E-4818 for accelerated replacement measures.

Second, Commission staff pointed out that normal replacement measures for commercial central water heating variable speed pumps require that an ISP be established. The preliminary review required that an ISP study be performed prior to resubmission of the workpaper. SCG did not perform this study, citing general statements from implementers that variable flow systems are almost never installed. Then, SCG's response to the preliminary review attempts to place the burden of establishing ISP on to CPUC staff stating, "if the Commission staff has seen more efficient technology as an industry standard in the past 15 years, please provide the description of the technologies, common building types, and relevant information so SCG can review as a standard practice." This is unacceptable.

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

On a positive note, SCG initiated a study to further identify ISP for commercial pool covers. Commission staff acknowledge that there is a possibility that customers may "revert" to a less efficient practice of not using pool covers without measure incentives. To date, PAs have not carried out any research into this scenario except to inquire with some of the most prominent program implementers. This SCG activity will be the first effort into a more independent investigation of customer behavior.

Additionally, we commend SCG on their efforts to comply with D.12-05-015 which requires PAs to update savings values and measure offerings to reflect changes in governing standards. We note that SCG proactively undertook efforts to revise water heater calculation methods to reflect the change in standards from Energy Factor to Uniform Energy Factor.

Unfortunately, SCG's lack of follow through on their residential smart thermostat program signals inconsistency with regards to this metric. As discussed elsewhere in this memo, SCG has recently notified Commission staff that they are not complying with the November 2016 disposition regarding residential smart thermostats. It appears that SCG was aware of a mismatch between their program tracking requirements and the information they were receiving from SCE for some or all of 2017; however, SCG did not notify Commission staff until January 8, 2018. SCG should have notified Commission staff immediately; SCE should also have taken action in this regard.

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

In some program areas, SCG performed high quality work in 2017. However, Commission staff highlights other work areas where SCG needs to improve their due diligence.

Similar to other feedback in this memo, Commission staff applauds SCG's efforts to support measure changes per the federally required rating standards for small and residential use water heaters. The standards changed on January 1, 2017 but no units rated by the new federal standard were available at the time the most recent DEER update was published. SCG initiated the development of revised calculation methodologies and measure definitions that incorporate the new federal standards. By the time the ESPI memos are issued the Commission staff will have published a 2018 Phase 1 disposition that further expands the SCG proposed methods and provides revised measure definitions and impacts



for small and residential use water heaters.

On the other hand we are disappointed that SCG did not follow through with the agreed upon customer tracking requirements included in the final disposition for the smart thermostat workpaper, WPSCGREHC160624A. On January 8th, 2018, SCG's submitted a Request for Exception from the tracking requirements for their 2017 Residential Smart Thermostat program. SCG requested that they be allowed to replace the disposition requirements with the assumptions they proposed in their 2016 workpaper. Specifically, SCG's request for exception only claims to verify the customer thermostat exists (not that it is a new purchase) and that the customer is a SCG customer (not that gas supplies the home's heating). The 2016 discussions between SCG and Commission staff vetted those assumptions and the sole purpose of these disposition requirements is to collect additional information in order to understand whether the assumptions are valid. Therefore, SCG's delay on more than 1 year in stating that they are not complying with the disposition is very concerning.

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

Unfortunately, our feedback on this ESPI metric is largely negative. In almost all areas where Commission staff interacted with SCG in 2017, we found SCG to need improvements in their technical responsiveness. The specific interactions have already been discussed in this memo so this section briefly lists the improvements that Commission staff request of SCG.

Regarding residential smart thermostats, SCG should proactively reach out to Commission staff if direction from a disposition cannot be met; particularly when a program is active and represents a large portion of the PA's deemed claims.

SCG should greatly improve their technical response to workpaper review comments. With regard to commercial low flow showerheads and commercial central water heating variable speed pumps, SCG's revised workpaper was largely non-responsive.

## **IV. The Scoring Methodology**

The 2017 ex ante review performance score was developed using a detailed scoring by metric 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 ex ante values. Attachment A summarizes the Metrics adopted in D.16-08-019 for 2016 and beyond as well as the Commission staff developed scores and points for 2016. D.16-08-019 also directed that the custom and workpaper scoring be weighted together into a final score based of the PA total claims for custom and deemed activities, respectively. The weights for custom and deemed scores will be developed and published by Commission staff in June 2018 based upon the PAs' final 2017 savings claims filed on May 1, 2018.

In accordance with D.16-08-019, the IOUs' ex ante 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 1-5 rating scale is distinguished as follows:

1. Consistent underperformer in meeting the basic expectations;

2. Makes a minimal effort to meet Commission expectations but needs dramatic improvement;
3. Makes effort to meet Commission expectations, however improvement is required;
4. Sometimes exceeds Commission expectations while some improvement is expected; and
5. Consistently exceeds Commission expectations.

As with the 2016 ex ante review performance scores, the final scores were “built-up” from a metric-by-metric assessment of each reviewed work product. It is Commission 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.16-08-019. We believe this scoring approach provides specific guidance to the utilities on how to improve their ex ante due diligence and scores moving forward.

A “Direct Work Product Review” portion of each metric score was developed based upon the individual scoring of dispositions issued for custom project or workpapers. Each reviewed utility work product was first determined to have components either applicable or not applicable to a metric<sup>4</sup>. If not applicable to a metric that item was not used in the final score development for the 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 as either deficient (or “-”), apparent but minimal (or “yes”), or superior (or “+”). Each of the ratings were then assigned a score percentage level of 0%, 50% and 100%, respectively. The assigned percentage scores were averaged across all the reviewed items. Individual workpaper level disposition scoring as well as related workpaper activities is provided in Attachment C.

For custom projects, each metric was directly scored using the rating scale described above in accordance with the maximum points allocated to the metric and the applicability of the metric to the work product reviewed by Commission staff. A project by project summary of the custom project scoring is included in Attachment B2.

Commission staff applied the above process to calculate the custom and workpaper work product review scores. Next, utility-specific review process “Review Process Score Enhancements” were developed for each applicable metric based on observed policy and technical review or program implementation processes and procedures developed and under implementation in 2017 that are expected to positively impact future selected project reviews. Commission staff believes it is important to provide ESPI points for positive due diligence developments as recognition of the effort and continue encouragement even before a change in project-level results is observed.

In the custom scoring process Commission staff added points as “Enhancements” in the area of Policy/Technical QA/QC for Metrics 1, 2, 4 and 5 to reflect SCG staff’s positive efforts in these metric areas as discussed earlier. Those initiatives include policy compliance and early project development stage review procedures and processes, active training of staff and contractors, coordination of and

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<sup>4</sup> 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 9 (“Professional care and expertise in the use and application of adopted DEER values and DEER methods”). Another example would be a minor workpaper or small custom project may not receive a score for metric 4 (“Efforts to bring high profile, high impact, or existing (with data gaps) projects and/or measures to Commission staff in the formative stage for collaboration or input”)

participation in the Track 2 Working Group. Although these efforts have not yet reflected themselves into the dispositions scores Commission staff believes recognition of the efforts of SCG technical and policy review staff is warranted. SCG staff has described to Commission staff other planned additions to their early review activities to address recurring issues identified in previous ESPI memos and earlier in this memo. We believe these activities offer promise to improve the overall SCG ex ante performance, however, Commission staff must defer review of those activities until later after implementation to assess if they warrant further augmentation of the SCG ex ante performance scoring for 2018 and beyond.

Commission staff has observed some similar efforts in the program implementation area and thus a “Review Process Score Enhancements” was assigned to Metrics 3 and 4 as an “Implementation Increase”. Although the year-over-year score increase for the custom activity area is significant we urge SCG staff to take such actions as outlined earlier so as to allow further improvement in performance and scoring during 2018.

Workpaper scores also include “Review Process Score Enhancements.” Process issues represent critical deemed measure development topics where Commission staff believes improvement is needed or improvement has occurred, but those activities are not necessarily reflected in the areas of direct review.

To produce final scores, the individual metric scores for the two workpaper contributing areas were added together, using a 50% weight for the process issues score. The 50% 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), Commission 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 SCG.<sup>5</sup>

[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](mailto:peter.lai@cpuc.ca.gov)). Note that pursuant to D.13-09-023, Commission staff scheduled a meeting on April 11, 2018 at 1:30 pm with SCG staff to answer clarifying questions of this memo and discuss the SCG final scores.

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<sup>5</sup> 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 1a), 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 Ex Ante Review Scores**

Metric		Workpapers				Custom			
		Max Points	Max Percent of Total Points	2017 Score	2017 Points	Max Points	Max Percent of Total Points	2017 Score	2017 Points
<b>1</b>	<b>Timing and Timeliness of Submittals</b>	<b>5</b>	<b>10%</b>	<b>5.00</b>	<b>5.00</b>	<b>5</b>	<b>10%</b>	<b>3.32</b>	<b>3.32</b>
	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 PA responses to review disposition action items including intention to submit/re-submit with proposed schedule.								
<b>2</b>	<b>Content, Completeness, and Quality of Submittals</b>	<b>15</b>	<b>30%</b>	<b>1.00</b>	<b>3.00</b>	<b>15</b>	<b>30%</b>	<b>3.19</b>	<b>9.57</b>
	Completeness, appropriateness, comprehensiveness, accuracy, and clarity of submittals. Submittal adherence to Commission policies, Decisions, and prior Commission 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.								
<b>3</b>	<b>Proactive Initiative of Collaboration</b>	<b>5</b>	<b>10%</b>	<b>3.50</b>	<b>3.50</b>	<b>5</b>	<b>10%</b>	<b>1.00</b>	<b>1.00</b>
	PA efforts to bring either measures, projects, studies, questions, and/or savings calculation methods and tools to Commission staff for discussion in the early formative stages, before CPUC staff review selection. In the case of tools, before widespread use in the programs. Commission staff expects collaboration among the PAs to develop common or coordinated submissions and for the PAs to undertake joint or coordinated planning activities and study work. The PAs 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 PAs 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.

<b>4</b>	<b>Program Administrator’s Due Diligence and Quality Assurance/Quality Control Effectiveness</b>	<b>12.5</b>	<b>25%</b>	<b>2.09</b>	<b>5.23</b>	<b>12.5</b>	<b>25%</b>	<b>2.79</b>	<b>6.98</b>
	<p>Commission staff expects the PA to have effective Quality Control (QC) and Quality Assurance (QA) processes for their programs and measures. The PAs 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 PA’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 PA’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 Commission staff can evaluate the effectiveness of the PA internal QA/QC processes.</p>								
<b>5</b>	<b>Program Administrator’s Responsiveness to Needs for Process and Program Improvements</b>	<b>12.5</b>	<b>25%</b>	<b>1.25</b>	<b>3.13</b>	<b>12.5</b>	<b>25%</b>	<b>2.25</b>	<b>5.63</b>
	<p>This metric reflects the PAs ongoing efforts to improve their internal processes and procedures resulting in increased ex post evaluated gross and net savings impacts. Commission staff looks not only to the PA’s internal QC/QA processes, but also whether individual programs and their supporting activities incorporate and comply with CPUC policies and prior Commission 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).</p>								
<b>Total</b>		<b>50</b>	<b>100%</b>		<b>19.85</b>	<b>50</b>	<b>100%</b>		<b>26.49</b>

## Attachment B1 Custom Project Action Items and Notes

Ref	Action Number:	Summary of CPUC Staff Required Action by the PA:	Action Category:
X530-2	1	<p>An extensive review of this project has been provided by CPUC Staff in the document titled "CPUC Staff Review Preliminary Assessment SCG X530.pdf" uploaded to the CMPA on 1/5/2016. The CPUC Staff January 5, 2016 memo for this project noted that SCG provided no information to CPUC staff that would suggest any influence by the SCG energy efficiency program which affected the overall customer decision to move ahead with this project or any alter any aspect of the project scope or design to be a more costly, more efficient design, the implementation of which was influenced by the program incentives or technical input. CPUC Staff concluded that the proposed ratepayer funds (incentives) did not buy any added ratepayer benefits, the proposed ratepayer funds appeared to just simply be supporting the customer's ongoing normal business investment. In 2014 SCG informed the refinery owner that it could begin ordering long-term procurement items for the project, noting that they would do so at their own risk (implying the incentive payment was at risk). This was approximately six months prior to the completion of the project feasibility study (PFS) and nearly nine months before the project documentation was posted to CMPA for CPUC staff review. This timeline suggests that the incentive effort was an "after the fact" process rather than one in which the customer's project was influenced by the SCG energy efficiency program. Based upon these observations, CPUC Staff assigned a net-to-gross ratio of zero for this project.</p> <p>CPUC Staff requested that SCG provide additional evidence of program influence for this project during an April 12, 2016 phone conversation with SCG when this project was discussed. The July 20, 2016 submittal from SCG includes a letter from the customer which SCG claims provides additional evidence of program influence on the approval and timing of the project.</p> <p>CPUC Staff found that the letter from the customer did not provide any compelling evidence of Program influence for this project. The customer's letter did however describe internal customer documentation which CPUC Staff requested SCG to provide so that further review of the issue of program influence for this project could be performed.</p> <p>On November 4, 2016 SCG provided the requested documentation. The documentation mentions a potential \$1 million incentive from SCG. CPUC Staff have concluded that the anticipated incentive had no discernable impact on the simple economic payback of this \$20 million capital cost project with an estimated \$10.2 million annual cost savings benefit to the customer. The simple payback without an incentive is 1.96 years. The simple payback with an incentive is 1.86 years. The customer proceeded to order equipment for this project in 2014 well before any documentation was prepared by the SCG. CPUC Staff have concluded that the preponderance of evidence is that there is no program influence for this project. Documents provided indicate the customer's willingness to proceed with the project absent the influence of the program. The assignment of a net-to-gross ratio of zero for this project noted in Staff's January 5, 2016 memo for this project remains unchanged. CPUC Staff does not believe projects like</p>	NTG

		<p>this one, for which SCG cannot demonstrate any substantial program influence, should be eligible for ratepayer support via programs that are expected to cause customer to exceed their standard business practices due to the availability of program information or financial support. CPUC Staff require the PA to revise the project documentation to assign a NTG value of zero for this project.</p>	
<b>X530-2</b>	<b>2</b>	<p>During the initial project review, CPUC staff were unable to completely understand the details of what was being proposed in the project and were unclear of the source of all energy savings or the ability of the M&amp;V plan to accurately estimate those savings. A request for additional information was sent to SCG via e-mail on August 17, 2015. SCG posted a response to the CMPA on September 15, 2015. Based upon the additional details provided in SCG's response, CPUC staff clarified its understanding of the pertinent details of the measures in order to properly assign measure types and relevant baselines. While SCG continued to view the project as two measures, CPUC staff believes the upgrade to FCC Unit is more appropriately described, for EE analysis purposes, as comprised of four separate measures: 1) the modification of main fractionators to replace the bubble cap and valve tray design with structured packing; 2) Addition of a take-off from the main fractionators to allow removal of ██████████ (CCD) from the main column overhead streams; 3) Increased generation of 400 psig steam in the FCC unit by providing additional heat exchange capability on the Slurry bottoms stream from the Auxiliary Column; and 4) Replace the current de-pentanizer fired heater re-boilers, with heat from the Main Column Lower Circulating Reflux (LCR) streams through the new shell and tube re-boilers.</p> <p>As described in detail in the January 5, 2016 memorandum CPUC staff found that no gross savings can be attributed to Measure 1 and Measure 4 as the gross savings baseline for this normal replacement measure equals the post measure conditions. For Measure 2 - Removal of Cat Cracked Distillate (CCD) from the main column overhead streams, CPUC staff assigned a measure type of add-on retrofit (REA). The gross savings baseline for measure 2, as an add-on measure type, is assigned as in-situ ("existing") conditions. For Measure 3 - Add heat exchange capability on the Slurry bottoms stream from the Auxiliary Column, CPUC staff assigned a measure type of add-on retrofit (REA). The gross savings baseline for measure 3, as an add-on measure type, is also assigned as in-situ ("existing") conditions.</p> <p>If SCG wishes to pursue gross savings impacts for this project, the documentation must be revised to break the project up into four measures as described by CPUC staff and a revised M&amp;V plan will be required to capture the impacts of measures 2 and 3 independent of the impact associated with the ineligible measures 1 and 4.</p>	Eligibility
<b>107</b>	<b>1</b>	<p>CPUC Staff finds that Measure 1, CAV to VAV Conversion, is not a REA measure type. The PA indicates that ██████████ undertook their Technical Review. The PA's Technical Reviewer also undertook the review of SCE's counterpart to this project and should have been fully aware of prior CPUC Staff dispositions issued to SCE for this same measure for a different entity. The dispositions for SCE Application ID 050039380 (X370) should have been followed. In addition, this issue was identified to the PA during the weekly status conference call of June 14, 2016. Hence, CPUC Staff finds that the PA did not follow CPUC Staff guidance for this measure. The PA shall re-classify the measure as a Normal Replacement (NR) measure type, establish a technical baseline using Title 24 requirements, revise the measure EUL value, determine an incremental measure cost (IMC), and revise the estimated financial incentives accordingly.</p>	Did not follow previous CPUC guidance
<b>107</b>	<b>2</b>	<p>CPUC Staff find that the PA's Technical Review for Measure 2, Replace Pneumatic Controls with DDC Controls, in regards to the 2013 Title 24 requirements is incomplete. Since the proposed measure replaces the existing controls, not only is the static pressure reset measure a</p>	Baseline

		mandated requirement, but the supply temperature resets measures are as well (2013 Title 24 Sections 140.4 and 141). Also, the proposed measure entails the replacement of thermostats. The thermostat replacements are like-for-like replacements and ineligible. In addition, Section 120.2 of the 2013 Title 24 requirements must be considered part of the technical baseline, in particular the requirements for HVAC equipment shut-offs and setbacks during unoccupied time periods.	
107	3	CPUC Staff finds that for Measure 2, Replace Pneumatic Controls with DDC Controls, the PA did not provide and use IMC as required for ROB/NR measure types. The PA shall determine the appropriate IMC with due consideration of the issues identified in Action 2 above and only include eligible cost items.	Measure cost
107	4	CPUC Staff finds that for Measure 2, Replace Pneumatic Controls with DDC Controls, the PA used a EUL value representative of an REA measure type. The PA revise the EUL value to represent an ROB/NR measure type.	EUL/RUL
107	5	In the CMPA Data Request folder for this project, CPUC Staff posted the following CMPA Message to the PA on 12/13/2016: " <i>When CPUC Staff selected Application 5001257045 for Ex Ante Review, SCG had indicated in the 6/6/2016 CMPA List that this project was not receiving Prop 39 funding. CPUC Staff finds in the 2016-2017 Prop 39 Budget allocations for community colleges that this customer is slated to receive funding that nearly match the full project cost for this application. CPUC Staff requires SCG to confirm whether the project is allocated Prop 39 funding.</i> " CPUC Staff posted in the same folder a copy of the 2016-17 Prop 39 Budget Allocations. The PA did not reply to staff's request. CPUC Staff requires that the PA provide documentation identifying what projects the allocated Prop 39 funds represent for this community college customer.	CPUC Policy
120-1	1	CPUC Staff finds that the PA did not coordinate this project with PG&E. CPUC Staff finds that the SCG and PG&E proposed projects are one in the same and both PAs must approach and treat the project in the same manner. CPUC Staff requires that the PAs coordinate and adopt a single proposed project scope, analysis approach, and baseline. For example, the operation of the current system is not explained and it is uncertain whether processing from all three [REDACTED] water tanks is simultaneous. For the proposed system, PG&E assumes that a single UV light system would be installed with three UV lamp sources. The partial P&ID drawing provided by SCG indicates two separate operating UV light [REDACTED] lines, piped in parallel, with a single UV lamp source in each. However, SCG submitted a document that indicated that one system would be a spare (Data - [customer name] - LEPR1H.15S - [REDACTED] Water System Layout.pdf). SCG approaches the project as a fuel switching, NR measure type, whereas PG&E treats it as an NR measure type with a lower efficiency UV light system as the ISP baseline.	Analysis assumptions
120-1	2	CPUC Staff finds that the PA submitted PFS report contains partial photographs of customer P&IDs for both the existing and proposed systems in Figures 3 and 4. CPUC Staff requires the PA to provide full, legible copies of the drawings neither cropping nor obscuring any portion of the documents, in particular the boxed information areas that provide the design firm, drawing version numbers, and dates.	Missing required information
120-1	3	CPUC Staff is concerned that this project exhibits no program influence other than the offer of significant financial incentives to help the customer meet their internal simple payback threshold of three years. The submitted documentation indicates that the customer approached the PA regarding potential incentives for the project on August 28, 2015 after the UV system vendor had visited the site for a smaller unrelated UV light project. Subsequently, the PA retained AESC to prepare a PFS in November 2015. The customer signed the PA's program application on	Program influence



		<p>April 26, 2016. CPUC Staff's research found that the customer's new plant in [REDACTED] uses a UV light [REDACTED] system, and therefore, the customer was already familiar with the benefits of the technology. CPUC Staff finds that the submitted simple payback analysis does not incorporate the financial benefits of reduced potable water usage and possible savings due to lesser waste water disposal costs. Since the project scope is not completely clear, allowable project costs and benefits remain unclear and therefore the submitted simple payback analysis with and without incentives are inconclusive to support program influence. CPUC Staff is not completely convinced that the proposed project wasn't in part a response to the State's request for significant water savings due to the drought. In addition, there is no apparent indication that the customer considered any other alternatives to the proposed system and that the PA suggested any potential improvements beyond what the customer was already considering.</p> <p>The PA indicated that this is a technically sophisticated customer with complex process systems, and therefore, the PA relies on the customer's expertise to develop and propose energy efficiency improvements for their facility. The PA states that this project is a "...first of its kind in the industry, and as such, it's viewed with some skepticism among some within [the customer's organization]." CPUC Staff finds this later statement ungrounded based on the customer reliance on UV light [REDACTED] in their [REDACTED] plant and the successful retrofit of UV systems in similar facilities by the UV system vendor in other parts of the country.</p> <p>CPUC Staff requires the PA to submit a revised simple payback analysis once the project scope and analysis are revised in coordination with PG&amp;E. CPUC Staff requires the PA to provide the information along with revised program influence documentation for the project in coordination with PG&amp;E since they also claim program influence.</p>	
120-1	4	<p>CPUC Staff observes that the submitted PFS only indicates that the existing system usage will be displaced and makes no assertion whether the existing equipment will be removed or abandoned in place and not maintained. CPUC Staff's examination of the partial P&amp;ID provided in Figure 2 of the PFS indicates that the existing cow water processing systems are very flexible and may not be entirely non-operational once the new UV light [REDACTED] system is in place. For example, it is conceivable that the pumps could be used to transfer fluid between the different tanks as needed and therefore reducing the potential savings. Also, if the existing systems remains in place, the addition of the UV light [REDACTED] system may allow for increased production. CPUC Staff did not find any discussion in the submitted documentation that detailed whether the customer intends to keep production at current levels for the life of the proposed system. If indeed the customer intends to enable future production capacity expansion, then a more formal determination of the industry standard practice would be necessary as PG&amp;E has presented in their analysis.</p> <p>The PA must clarify the customer's intentions for the existing equipment and if the customer has plans to expand production.</p>	Missing required information
120-1	5	<p>The PA did not provide any specifications for the proposed UV Light system containing power draws, lamp and driver service lives, etc. Hence, the determination of measure EUL cannot be fully assessed. The PA shall provide the detailed specifications of the proposed system along with service life information of the key components to support the EUL determination.</p>	EUL/RUL
120-1	6	<p>CPUC Staff finds that the PA's internal policy shift to pursue a fuel switching project while at the same neglecting accounting for the negative</p>	CPUC Policy

		<p>natural gas impacts from either SCE or PG&amp;E projects in the IOU's territory to a major concern. CPUC Staff note that both SDG&amp;E and PG&amp;E account for the negative impacts their electric savings programs have upon their natural gas savings claims. CPUC Staff believes that if SCG wishes to pursue savings claims due to fuel switching with possible negative impacts accruing to their electric utility counterpart, then the negative impacts of the electric utility programs should also accrue against SCG's programs.</p> <p>SCG must outline how this change in SCG's policy (taking EE credit for fuel switching) should be reflected in SCG's program activities and savings claims. CPUC Staff will bring these concerns to the attention of CPUC management in parallel with the requirement that SCG to respond to this issue.</p>	
<b>120-1</b>	<b>7</b>	SCG must demonstrate that it has authority from the CPUC to spend natural gas surcharge energy efficiency funds on an electric energy efficiency measure. SCG must provide documentation demonstrating this authority.	Eligibility
<b>129-1</b>	<b>1</b>	<p>There is no documentation provided demonstrating that the program has influenced the customer to adopt a more costly, more efficient system than they were otherwise planning before the program intervention. Email correspondence provided (FW_ EE support of [CUSTOMER NAME] expansion plans.pdf) dated 6/23/2016 indicates that the project engineering and design were complete at the time of the project application. Additionally, it appears that some of the equipment for this project had already been ordered.</p> <p>The PA must provide evidence demonstrating that the program has influenced the customer to adopt a more costly, more efficient system than they were otherwise planning before the program intervention.</p>	Program influence
<b>129-1</b>	<b>2</b>	<p>No evidence has been provided that the measure exceeds standard practice. The project application does not address this issue. Industry Standard Practice (ISP) must be used as the baseline for this new construction measure type project.</p> <p>The PA must resubmit the documentation for this project and provide an assessment of Industry standard practice for this measure and justification for the proposed baseline.</p>	Baseline
<b>129-1</b>	<b>3</b>	The project documentation indicates that some of the equipment for this project may have already been ordered. The PA must provide an updated status for this project, including any dates of equipment ordered associated with this project.	Eligibility
<b>130-1</b>	<b>1</b>	<p>There is no documentation provided demonstrating that the program has influenced the customer to adopt a more costly, more efficient system than they were otherwise planning before the program intervention. Email correspondence provided (FW_ EE support of [CUSTOMER NAME] expansion plans.pdf) dated 6/23/2016 indicates that the project engineering and design were complete at the time of the project application. Additionally, it appears that some of the equipment for this project had already been ordered.</p> <p>The PA must provide evidence demonstrating that the program has influenced the customer to adopt a more costly, more efficient system than they were otherwise planning before the program intervention.</p>	Program influence

<b>130-1</b>	<b>2</b>	No evidence has been provided that the measure exceeds standard practice. The project application does not address this issue. Industry Standard Practice (ISP) must be used as the baseline for this new construction measure type project.  The PA must resubmit the documentation for this project and provide an assessment of Industry standard practice for this measure and justification for the proposed baseline.	Baseline
<b>130-1</b>	<b>3</b>	The project documentation indicates that some of the equipment for this project may have already been ordered. The PA must provide an updated status for this project, including any dates of equipment ordered associated with this project.	Eligibility
<b>169-1</b>	<b>1</b>	The age of existing equipment and controls have not been provided in the PA's documentation. Projects proposing to claim program induced early replacement must include the age of the existing equipment, its maintenance history and an assessment of the equipment's ability to meet the customer's current and future technical, functional and economic requirements. The PA must revise the project documentation to include this information.	Missing required information
<b>169-1</b>	<b>2</b>	The documentation has not adequately addressed program influence for the early replacement measure type. References provided to meetings with the customer without any context or details are insufficient. There is reference to an email from the customer which has not been provided in the submitted documents. It is unclear if the PA introduced the concept of the project to the customer or if the customer developed the project concept and details. The PA must provide both a description of evidence which supports program influence and evidence which does not support program influence. The PA then must include an assessment of the evidence for this project. If the assessment is negative, the project should be rejected from program participation.	Program influence
<b>169-1</b>	<b>3</b>	Assessment of standard practice for the second baseline is incorrect. The standard practice assessment should be what customers are installing today, not what the market saturation of various types of installed controls is. The email correspondence between the PA and the vendor does not clearly indicate what type of controls are being installed for these systems today. The PA must reassess the second baseline for this project, and make appropriate adjustments.	Missing required information
<b>169-1</b>	<b>4</b>	The PA's analysis is based on an assumption that the post installation system will operate at 5% excess air. 5% excess air is very aggressive operating condition. Industry documents (DOE EERE Steam Tip Sheet Number 4: <a href="http://www.nrel.gov/docs/fy06osti/39308.pdf">http://www.nrel.gov/docs/fy06osti/39308.pdf</a> ) suggests that 10% excess air is very efficient target for a natural gas combustion system and a work paper prepared by the PA (Excess Air Reduction Report, EEA Report No. B-REP-06-599-08C, May 2006) suggests that 10-15% excess air is a realistic target. The PA has stated that M&V is not required for this project. The PA must address how the 5% excess air value used in the analysis will be verified and trued up after the installation is completed. The verification must include the normal operating range of the system. The PA stated that the customer has already converted one of the heaters to the new control system but does not state what % excess air the modified system operates at. This could provide some useful insight to the realistic expectations for this project.	Analysis assumptions
<b>169-1</b>	<b>5</b>	The baseline flue gas analysis is tested at high fire only. The ex ante calculations are based on high fire only, when the measure stated to "be	Analysis

		more efficient throughout the entire operating range". The PA must describe how these heaters normally operate- only at high fire or modulating? If modulating, the PA must describe how the analysis will accurately estimate the impacts of the measure throughout the entire operating range.	assumptions
169-1	6	The PA must provide a method to verify the post installed operating % excess air for this project which reflects the normal operating conditions of the affected conditions. The post installation measurements must be used to true up the ex ante savings claim for this project.	M&V plan
120-2	1	SCG will upload this project's baseline and post installation measure impact analysis as determined through post installation measurement and verification accounting for production "normalization" for both electric and gas impacts with all raw supporting data to the project directory at the installation report stage of the project.	Analysis assumptions
120-2	2	SCG will upload documentation that ensures that the cost used reflects both costs incurred as well as costs saved (water and waste-water cost reductions, other maintenance or cost savings) to make sure the 50% incentive cap limit on the incentive is correctly applied.	Incentive calculation
120-2	3	CPUC Staff finds that the PA's internal policy shift to pursue a fuel switching project while at the same neglecting accounting for the negative natural gas impacts from either SCE or PG&E projects in the IOU's territory to a major concern. CPUC Staff note that both SDG&E and PG&E account for the negative impacts their electric savings programs have upon their natural gas savings claims. CPUC Staff believes that if SCG wishes to pursue savings claims due to fuel switching with possible negative impacts accruing to their electric utility counterpart, then the negative impacts of the electric utility programs should also accrue against SCG's programs. SCG must outline how this change in SCG's policy (taking EE credit for fuel switching) should be reflected in SCG's program activities and savings claims.	CPUC Policy
120-2	4	SCG must demonstrate that it has authority from the CPUC to spend natural gas surcharge energy efficiency funds on an electric energy efficiency measure. SCG must provide documentation demonstrating this authority. CPUC Staff will bring this issue to the attention of the Commission in the phase 3 of the proceeding.	Eligibility
120-2	N1	This project is waived from further review as a one-time only exception. SCG has not demonstrated that it has authority from the CPUC to spend natural gas surcharge energy efficiency funds on an electric energy efficiency measure. Per D.05-04-051 (the updated policy rules for post 2005 EE and threshold issues for EM&V), Attachment 3 (EE policy manual version 3) "Rule II. 10: Pursuant to PU Code sections 381, 381.1, 399 and 890-900, PGC funds must be spent in the service territory from which the funds were collected. Additionally, gas PGC collections must fund natural gas energy efficiency programs and electric PGC collections must fund electric energy efficiency programs. However, nothing in these Rules is intended to prohibit or limit the ability of the Commission to direct the IOUs to jointly fund with PGC or other collections (e.g., via procurement rates) selected measurement studies, statewide marketing and outreach programs, or other energy-efficiency activities that reach across service territory boundaries." Appendix B	Eligibility

		<p>“Energy Efficiency Measure- An energy using appliance, equipment, control system, or practice whose installation or implementation results in reduced energy use (purchased from the distribution utility) while maintaining a comparable or higher level of energy service as perceived by the customer. In all cases energy efficiency measures decrease the amount of energy used to provide a specific service or to accomplish a specific amount of work (e.g., kWh per cubic foot of a refrigerator held at a specific temperature, therms per gallon of hot water at a specific temperature, etc.). For the purpose of these Rules, solar water heating is an eligible energy efficiency measure.”</p> <p>CPUC staff will request for Commission clarification in the upcoming Phase 3 of the EE proceeding. Until such clarification is provided by the Commission, or SCG has demonstrated it has authority from the CPUC to spend natural gas surcharge energy efficiency funds on electric energy efficiency measures, similar projects moving forward be ineligible.</p>	
120-2	N2	<p>CPUC Staff finds that the PA's internal policy shift to pursue a fuel switching project while at the same neglecting accounting for the negative natural gas impacts from either SCE or PG&amp;E projects in the IOU's territory to be a major concern. CPUC Staff note that both SDG&amp;E and PG&amp;E account for the negative impacts their electric savings programs have upon their natural gas savings claims. CPUC Staff believes that if SCG wishes to pursue savings claims due to fuel switching with possible negative impacts accruing to their electric utility counterpart, then the negative impacts of the electric utility programs should also accrue against SCG's programs.</p> <p>SCG must outline how this change in SCG's policy (taking EE credit for fuel switching) should be reflected in SCG's program activities and savings claims. CPUC Staff will bring this concern to the Commission in phase 3 of the EE proceeding.</p>	CPUC Policy
120-2	N3	<p>CPUC Staff finds that the PA did not coordinate this project with PG&amp;E. CPUC Staff finds that the SCG and PG&amp;E proposed projects are one in the same and both PAs must approach and treat the project in the same manner. Moving forward, CPUC Staff requires that the PAs coordinate and adopt a single proposed project scope, analysis approach, and baseline.</p>	Analysis assumptions
120-2	N7	<p>CPUC Staff will issue a Statewide disposition on funding for fuel substitution projects in the near future.</p>	CPUC Policy
176	1	<p>The customer stated that they are not aware of any [REDACTED] plant retrofit projects where the [REDACTED] adsorbent was replaced with the [REDACTED] adsorbent. The customer also stated that the [REDACTED] production facility where this retrofit is proposed is the only plant they are aware of with the [REDACTED] freezing issue. CPUC Staff have concluded that the project is a first of its kind and that the energy impacts are highly uncertain. Under situations where savings are highly uncertain either due to an untested approach or untested product or a unique new measure and where the pre-installation savings values may be difficult to reliably estimate by analysis, there should be no approval of savings estimates until the post installation data set is analyzed. No savings estimate will be approved for this project until post installation M&amp;V is reviewed. The pre-installation ex ante impacts for this project must be set to zero peak demand kW, zero annual kWh and zero annual therms. The ex ante impacts for this project will be trued-up based on post installation M&amp;V.</p> <p>SCE and SCG must make clear to the customer and any implementers involved that no peak demand kW, annual kWh or annual therm</p>	Revise to match CPUC savings estimate

		estimates based only upon pre-installation estimates may be utilized for any payments for this project. No savings based payment shall be made on this project except based upon approval of pre-/post-installation M&V and analysis approved by Commission staff. Before executing an incentive agreement SCE and SGC must modify that agreement to make clear that pre-installation savings estimates are highly uncertain and no payment will be made based upon such estimates. The PAs must revise the project documentation and upload it to the CMPA folder for this project to reflect this requirement.	
	2	<p>The project feasibility studies presented by SCE and SCG were very thorough provide a good description of the existing and proposed systems for this complex industrial project. However one area not directly addressed in the feasibility studies provided by SCE and SCG, is that a high percentage of the natural gas consumed at this facility is used as a material to make a product (i.e. hydrogen).</p> <p>The submitted ex ante savings analysis includes expected impacts from natural gas used as a material to make hydrogen. Any reduction in natural gas used as a material resulting from the implementation of this project is ineligible to be claimed or incentivized by the PA as "Energy Efficiency". Any reliably verified reduction in natural gas usage associated with natural gas used as energy resulting from the implementation of this project (e.g. combusted in the reformer furnace) may be claimed as energy efficiency. Reductions in natural gas used to produce work (e.g. thermal energy) may be eligible. CPUC Staff will issue a Statewide disposition related to this issue in the future.</p> <p>The PA must revise and resubmit the project documentation including the calculation methodology and M&amp;V plans to reflect this requirement before executing an incentive agreement for this project.</p>	CPUC Policy
176	3	<p>CPUC staff note that the customer has extensive data collection and archiving capabilities. Both PAs have proposed a normalized metered energy consumption (NMEC) analysis approach for this project. CPUC Staff note that the proposed savings impacts are 4.6 % of the total annual therms and 7.3. % of the total annual kWh. The eligible natural gas savings impacts will be significantly reduced from the proposed levels due to the ineligibility of natural gas used as a material to be claimed as energy savings. CPUC Staff are concerned that the expected savings impacts are too small relative to the total annual consumption for this approach to be reliable. The PAs must examine the baseline data to determine if this approach is appropriate for this project-e.g. are the natural variations in kWh/scf and therms/scf too large to reliably detect the projected savings impacts for this project? If so another M&amp;V approach may be necessary. SCE and SCG must work together to devise a single comprehensive and coherent M&amp;V plan for this project. CPUC Staff note that the preliminary analysis for this project used the customer's electric meter data, not SCE's revenue meter data. The post installation analysis must use the SCE electric interval data for both the baseline and post installation analysis if the NMEC approach is used.</p> <p>CPUC staff note that the current M&amp;V plans do not account for ambient temperature (the customer indicated this is an important parameter) and do not account for the production of liquid versus gaseous hydrogen- which has a direct impact on electrical energy consumption. The PA must revise the project documentation to address these issues before executing an incentive agreement for this project. The revised documentation must be uploaded to the CMPA folder for this project.</p>	M&V plan
176	4	CPUC Staff note that the project is expected to decrease but not eliminate the required frequency for the customer to defrost the heat	M&V plan

		<p>exchanger downstream of the cold turbines. The PA documentation indicates that [REDACTED] freezing increases the pressure drop in this heat exchanger increasing the compressor energy required. This freezing causes a degradation of the compressor performance over time as the frozen [REDACTED] builds up on the heat exchanger, increasing the kWh/scf [REDACTED] in the liquefaction process. The PAs currently propose that the post installation M&amp;V period for this project be 3 months and that data be analyzed in 5 hour intervals. The M&amp;V plan duration must include consideration for the period of time that the existing and post implementation systems are degrading in their specific energy performance metrics. The proposed measurement periods must include full cycles of degraded performance so that a valid performance comparison can be made. Additionally it is unclear why a 5 hour data interval is being proposed for this project. A re-assessment of the required duration and analysis interval for the proposed M&amp;V must be included in the revised M&amp;V plan.</p> <p>The PAs must revise the M&amp;V plan reflecting these requirements before executing an incentive agreement for this project. The M&amp;V plan will be a single plan demonstrating how the impacts of the project will be determined for both natural gas and electricity. The revised M&amp;V plan must be uploaded to the CMPA folder for this project.</p>	
176	5	<p>The PAs have proposed a 20 year RUL for this accelerated replacement measure type. For the accelerated replacement measure type the RUL for the first baseline is set at 1/3 of the host equipment/existing equipment EUL per D.12-05-015. The maximum EUL for is 20 years. The RUL for this project must be revised to <math>1/3 \times 20 = 6.7</math> years.</p> <p>The PA must revise the project documentation with the correct RUL before executing an incentive agreement for this project.</p>	EUL/RUL
176	1	<p>Commission D.05-04-051, Ordering Paragraph 1 Attachment 3, Appendix B defines an energy efficiency measure as:          “An energy using appliance, equipment, control system, or practice whose installation or implementation results in reduced energy use (purchased from the distribution utility) while maintaining a comparable or higher level of energy service as perceived by the customer. In all cases energy efficiency measures decrease the amount of energy used to provide a specific service or to accomplish a specific amount of work (e.g., kWh per cubic foot of a refrigerator held at a specific temperature, therms per gallon of hot water at a specific temperature, etc.)”</p> <p>Reductions in natural gas used as a material to make products resulting from proposed energy efficiency projects are ineligible for energy efficiency program participation. CPUC Staff will issue a Statewide disposition related to this issue in the future.</p>	CPUC Policy

## Attachment B2 Custom Project Scores and Feedback

The table below lists the identification numbers associated with each disposition. The PA may refer to [Attachment B1](#) for more detailed descriptions of the specific actions staff required for each application. All custom projects were scored using new metrics adopted in 2016. The metrics are shown in the Table below.

Table 3 2016 Adopted ex ante Metrics

Metric	2016 CPUC Adopted ex ante Metrics	Maximum Points	% of TOTAL POINTS
<b>Metric 1</b>	<b>Timeliness and Timing of Submittals</b> Timely submittal of all documentation and follow-up utility responses to review disposition action items.	<b>5.0</b>	<b>10%</b>
<b>Metric 2</b>	<b>Content, Completeness and Quality of Submittals</b> 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.	<b>15.0</b>	<b>30%</b>
<b>Metric 3</b>	<b>Proactive Initiation of Collaboration</b> 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.	<b>5.0</b>	<b>10%</b>
<b>Metric 4</b>	<b>Utility Due Diligence and QA/QC Effectiveness</b> 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.	<b>12.5</b>	<b>25%</b>
<b>Metric 5</b>	<b>Utility Responsiveness to Needs for Process &amp; Program Improvements (Course Corrections)</b> 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.	<b>12.5</b>	<b>25%</b>



	<b>X530-2</b>		<b>107</b>	
<b>Metric</b>	<b>SCORE</b>	<b>CPUC Staff Specific Comments on Each Metric</b>	<b>SCORE</b>	<b>CPUC Staff Specific Comments on Each Metric</b>
<b>Metric 1</b>	<b>2.5</b>	SCG responded to information requests in a timely fashion.	<b>2.5</b>	PA uploaded initial project documentation exceeded the expected timeframe and did not follow-up to CPUC Staff's subsequent question regarding Prop 39 funding.
<b>Metric 2</b>	<b>7.5</b>	The responses were appropriate and complete.	<b>3.8</b>	The PA's Technical Reviewer, kW Engineering, also provided the Technical Review for SCE's counterpart project. The Technical Review did not follow prior CPUC Staff guidance issued in prior dispositions to SCE regarding the same basic measure in CPUC Project ID X370 in April 2015.
<b>Metric 3</b>		NA	<b>N/A</b>	This metric is scored during the final annual ESPI review for overall activities and not just on a single project basis. This project did not entail any issue that the PA should have brought to CPUC Staff attention for proactive collaboration.
<b>Metric 4</b>		NA (this review is only for SCGs responses to CPUC Staff requests for information)	<b>3.1</b>	PA's Technical Review incorrectly assigned the Retrofit Add-on (REA) measure type when both measures should be considered Normal Replacements (NR).
<b>Metric 5</b>		NA (this review is only for SCGs responses to CPUC Staff requests for information)	<b>3.1</b>	CPUC Staff finds that the PA lacks a clear and transparent vetting process for Prop 39 projects and is allowing to-code measures to receive EE incentives.

	120-1		129	
Metric	SCORE	CPUC Staff Specific Comments on Each Metric	SCORE	CPUC Staff Specific Comments on Each Metric
<b>Metric 1</b>	<b>5.0</b>	The PA did not upload the initial project documentation within the expected timeframe. The documentation was provided 66 days beyond what was expected, i.e., two weeks after EAR selection.	<b>2.5</b>	The first upload for this project was 31 days after the PA was notified of the project being selected for review.
<b>Metric 2</b>	<b>11.3</b>	Reasonably complete, but missing key information such as existing operating sequences, power trends and measurements, proposed equipment specifications, etc. The project impacts the electric utility and the PA did not coordinate with their counterpart utility to ensure that assumptions and analysis are inline.	<b>3.8</b>	The documentation is comprehensive and clear however it does not follow previous guidance regarding demonstrating program influence and establishing ISP to justify measure baselines.
<b>Metric 3</b>	<b>N/A</b>	This metric is scored during the final annual ESPI review for overall activities and not just on a single project basis. This project did not entail any issue that the PA should have brought to CPUC Staff attention for proactive collaboration.		NA
<b>Metric 4</b>	<b>6.3</b>	The project impacts the electric utility and the PA did not coordinate with their counterpart utility to ensure that assumptions and analysis are inline. The PA's technical review did not fully scrutinize the assumptions and savings calculations based on the submitted documentation.	<b>3.1</b>	An assessment of standard practice has not been provided for this project by either the implementer or the PA technical reviewer. The PA's review seems to be limited to energy savings calculation review, and does not provided an adequate assessment of program influence or standard practice.
<b>Metric 5</b>	<b>6.3</b>	The PA did not question whether this project was potentially a freerider. The PA changed its internal policy regarding for this measure for this particular customer. In a prior project for the same UV technology application for different customer and food processing plant, the PA declined the project. CPUC Staff believes this project represents a likely freerider.	<b>1.3</b>	Despite guidance from CPUC staff on many previous projects, the PA continues to struggle with improvements to documenting ISP and program influence for proposed projects.

	130		169	
Metric	SCORE	CPUC Staff Specific Comments on Each Metric	SCORE	CPUC Staff Specific Comments on Each Metric
<b>Metric 1</b>	<b>2.5</b>	The first upload for this project was 31 days after the PA was notified of the project being selected for review.	<b>1.0</b>	The PA uploaded documents 56 days after notification of project selection.
<b>Metric 2</b>	<b>3.8</b>	The documentation is comprehensive and clear however it does not follow previous guidance regarding demonstrating program influence and establishing ISP to justify measure baselines.	<b>7.5</b>	The documents are reasonably clear however some critical information supporting program influence, the basis of assumptions regarding post installed % excess air, and the second baseline for the ER measure have not been provided.
<b>Metric 3</b>		NA		NA
<b>Metric 4</b>	<b>3.1</b>	An assessment of standard practice has not been provided for this project by either the implementer or the PA technical reviewer. The PA's review seems to be limited to energy savings calculation review, and does not provided an adequate assessment of program influence or standard practice.	<b>3.1</b>	CPUC Staff expect that the PA technical review will assess if adequate information supporting Program induced early replacement has been included. The basis of critical assumptions such as the percent excess air should also be reviewed and when uncertain or aggressive, the technical reviewer should require that critical assumptions be verified through measurement, notwithstanding the PA's M&V thresholds.
<b>Metric 5</b>	<b>1.3</b>	Despite guidance from CPUC staff on many previous projects, the PA continues to struggle with improvements to documenting ISP and program influence for proposed projects.	<b>3.8</b>	CPUC Staff are disappointed that the PA has not made better progress in addressing basic issues described in the disposition for this project.

	<b>120-2</b>		<b>176</b>	
<b>Metric</b>	<b>SCORE</b>	<b>CPUC Staff Specific Comments on Each Metric</b>	<b>SCORE</b>	<b>CPUC Staff Specific Comments on Each Metric</b>
<b>Metric 1</b>	<b>4.0</b>	The PAs response to the first disposition was received in 28 days.	<b>2.5</b>	The PA uploaded the first submittal for this project 35 days after being notified of the project selection.
<b>Metric 2</b>	<b>12.0</b>	The PA's response was reasonably comprehensive and clear.	<b>15.0</b>	The project feasibility studies presented by SCE and SCG were very thorough provide a good description of the existing and proposed systems for this complex industrial project.
<b>Metric 3</b>		The PA should have engaged with CPUC Staff in early discussions on the fuel switching aspects of this project which affects the measure eligibility.	<b>0.0</b>	SCG should have discussed the issue of energy efficiency program claims and incentives for reductions in natural gas used as a material to produce a product resulting from the implementation of this project much earlier in the project development.
<b>Metric 4</b>	<b>10.0</b>	The response to the first disposition was reasonable and found to be comprehensive in addressing the issues raised in the first disposition.	<b>2.5</b>	SCG should have discussed the issue of energy efficiency program claims and incentives for reductions in natural gas used as a material to produce a product resulting from the implementation of this project much earlier in the project development. The M&V plan does not seem to be very well thought out.
<b>Metric 5</b>	<b>6.3</b>	CPUC Staff finds that the PA's internal policy shift to pursue a fuel switching project while at the same neglecting accounting for the negative natural gas impacts from either SCE or PG&E projects in the IOU's territory to a major concern. CPUC Staff note that both SDG&E and PG&E account for the negative impacts their electric savings programs have upon their natural gas savings claims. CPUC Staff believes that if SCG wishes to pursue savings claims due to fuel switching with possible negative impacts accruing to their electric utility counterpart, then the negative impacts of the electric utility programs should also accrue against SCG's programs.	<b>8.8</b>	The documentation provided for this project is very thorough and detailed for this complex industrial process. The M&V plan is not well conceived, and staff are disappointed that the PA did not discuss the reductions in natural gas used as a material to produce a product resulting from the implementation of this project much earlier in the project development.

## 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 PA may refer to the individual dispositions for more detailed descriptions of the specific actions staff required for each workpaper. The qualitative ESPI scoring feedbacks are designated as follows:

- ‘+’ indicates a positive (from midpoint) scoring impact on a metric,
- ‘-’ 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 Preliminary Reviews				ESPI Metrics					
WP ID	Rev	Title	Comments	Weight	1	2	3	4	5
WPSCGNRWH170412A	0	Commercial Low Flow Showerhead	In 2017, CPUC staff waived review of the revised workpaper. However, upon brief review for the purposes of ESPI scoring, it is clear that the workpaper revisions were largely non-responsive to the preliminary review. For example, the EAR team pointed out that the claim of accelerated replacement had two requirements: that actual existing conditions be identified and that a preponderance of evidence support that the program is the cause of the accelerated replacement. SCG's response was that, via a direct install contractor, only older, high flow, showerheads would be replaced. This is not adequate support and also does not meet the requirements of E-4818 for AR measures.	1	+	-	-	no	-
WPSCGNRWH161128B	0	Central Water Heating Variable Speed Pump for Commercial	In 2017, CPUC staff waived review of the revised workpaper. However, upon brief review for the purposes of ESPI scoring, it is clear that the workpaper revisions were largely non-responsive to the preliminary review. For example, the EAR team pointed out that for normal replacement measures, an industry standard practice must be established and required that an ISP study be performed prior to resubmission of the workpaper. SCG did not perform this study, citing general statements from implementers that variable flow systems are almost never installed. Then, SCG's response to the preliminary review attempts to place the burden of establishing ISP back on to CPUC staff	1	+	-	-	no	-

stating "If the Commission staff has seen more efficient technology as an industry standard in the past 15 years, please provide the description of the technologies, common building types, and relevant information so SCG can review as a standard practice."

**Other Direction**

WP ID	Rev	Description	Comments	Weight	1	2	3	4	5
WPSCGREHC160624A	0	Smart Thermostats	On January 8th, 2018, SCG's submitted a Request for Exception from the tracking requirements for their 2017 Residential Smart Thermostat program. SCG requested that they be allowed to replace the disposition requirements with the assumptions they proposed in their 2016 workpaper. The discussions between SCG and Commission staff in 2016 vetted these assumptions and the sole purpose of the disposition requirements is to collect additional information in order to understand whether the assumptions are valid. Therefore, SCG's delay on more than 1 year in stating that they are not complying with the disposition is very concerning. More specifically, SCG's request for exception only claims to verify the customer thermostat exists (not that it is a new purchase) and that the customer is a SCG customer (not that gas supplies the home's heating). Based on the memo, it is unclear what QA/QC steps SCG has improved since 2016.	1	-	no	-	-	-
Various		Small Water Heater Revisions	D.12-05-015 requires PAs to update savings values and measure offerings to reflect changes in governing standards. EAR team notes SCG's efforts to revise water heater calculation methods to reflect the change in standards from Energy Factor (EF) to Uniform Energy Factor (EUF). A detailed review of SCG's proposed methods is not part of the 2017 ESPI scoring; however, CPUC staff acknowledge SCG's efforts to proactively address this change in the standards.	1	+	no	+	yes	no

Process Adders

1	<p>Updates to Unreviewed Workpapers Based on Other Reviews: Initiative of the PA to examine previous workpaper preliminary reviews or dispositions and use that information to identify and update other workpapers that may have similar issues.</p>	<p>The federally required rating standards for small and residential use water heaters changed on January 1, 2017, but no units rated by the new federal standard were available at the time the most recent DEER update was published. SCG initiated the development of revised calculation methodologies and measure definitions that incorporate the new federal standards. By the time the ESPI memos are issued the CPUC staff will have published a 2018 Phase 1 disposition that further expands the SCG proposed methods and provides revised measure definitions and impacts for small and residential use water heaters.</p>	1	yes	yes	+	+	yes
2	<p>Responsiveness to Previous Direction: Efforts to update workpapers where previous direction has been provided, such as through decisions (e.g. D.11-07-030 that required standard practice research on food service equipment) or through CPUC staff direction</p>	<p>On the other hand, CPUC staff is disappointed that SCG did not follow through with the agreed upon customer tracking requirements included in the final disposition for the smart thermostat workpaper, WPSCGREHC160624A. More than 1 year after the disposition was issued, SCG submitted a request for an exemption for those requirements. This puts CPUC staff in a very difficult position on how to handle this request, when CPUC staff has assumed that all the required data would be submitted.</p>	1	-	yes	no	-	no
3	<p>Consideration of Standard Practice and/or Code Baselines: Efforts to research typical standard practice or code baseline where it may not be well understood. For example: What are most common applications for program VRF and mini-/multi-split HVAC systems? What portion of small wattage LED fixtures are installed where high efficacy fixtures may actually be required by code? (which would reduce the likelihood that an incandescent baseline is reasonable)</p>	<p>On a positive note, SCG has initiated a study to further identify ISP for commercial pool covers. CPUC staff acknowledge that there is a possibility that customers may "revert" to a less efficient practice of not using pool covers without measure incentives. To date, PAs have not carried out any research into this scenario except to inquire with some of the most prominent program implementers. This will be the first effort into a more independent investigation of customer behavior. On the negative, SCG's recent responses to preliminary reviews on commercial service hot water heating measures with respect to ISP for NR measures, SCG was largely non-responsive and provided no additional support for their baseline assumptions. Refer to more detailed discussion of the specific workpapers (WPSCGNRWH170412A, WPSCGNRWH161128B) above.</p>	1	+	yes	yes	-	no

4	<p>Data Gaps in Best Available Information: Appropriateness and adequacy of data to support savings calculations, cost or net-to-gross assumptions. For example, when energy use information about the baseline technology is not readily available, the PA should perform additional research beyond seeking opinions of a limited group of individuals.</p>	<p>In review of workpapers listed above, the EAR team and CPUC staff identified several areas where new data was required to reasonably estimate energy savings. SCG provided additional background on some of the smart thermostat calculations (WPSCGREHC160624A), but still did not provide all of the data CPUC staff had requested (e.g. information about activities in the home that would have also changed the energy use of the home). As discussed above for WPSCGNRWH170412A, WPSCGNRWH161128B, SCG was only partially responsive to requests for additional information. On the other hand, SCG has initiated a study to develop better understanding of customer behavior and practices in replacing non-serviceable pool covers. Overall, SCG's efforts to identify best available data needs improvement.</p>	1	+	-	+	yes	yes
5	<p>Consistency with CPUC Policy and Existing Body of Decision Language: Ex ante values must be developed in a manner that is consistent with existing CPUC policy and all applicable decision language.</p>	<p>As discussed above for WPSCGNRWH170412A, WPSCGNRWH161128B, and WPSCGREHC160624A, CPUC staff has concerns about development of standard practice baseline and PoE for early retirement measures. On the positive side, SCG initiated the development of the revised measure definitions for small and residential use water heaters due to revised federal standards, which is responsive to direction contained in D.12-05-015.</p>	1	+	-	+	-	no
6	<p>Completeness of narrative on initial review: On first review, a workpaper should include enough descriptive information so that both the delivery approach, the ex ante values, and the relationships between the two are understood by the EAR team and CPUC staff.</p>	<p>CPUC staff have requested additional information from SCG on all reviewed workpapers. SCG is generally responsive and has shown improvement in this area. Furthermore, SCG is proactive in providing early information on proposed workpapers prior to formal submission of the workpaper.</p>	1	+	yes	+	yes	yes



**Attachment D: 2017 Ex Ante Review Annual Ratings**

**Custom Scoring**

<b>2017 Annual Custom Ratings</b>		<b>Metric 1</b>	<b>Metric 2</b>	<b>Metric 3</b>	<b>Metric 4</b>	<b>Metric 5</b>	
<b>Direct Workproduct Review Score</b>	<b>Dispositions Score</b>	<b>2.81</b>	<b>2.69</b>	<b>0.00</b>	<b>1.79</b>	<b>1.75</b>	
<b>Review Process Score Enhancements</b>	<b>Technical &amp; Policy QC Increase</b>	<b>0.50</b>	<b>0.50</b>	<b>0.00</b>	<b>0.50</b>	<b>0.50</b>	
	<b>Implementation Increase</b>	<b>0.00</b>	<b>0.00</b>	<b>1.00</b>	<b>0.50</b>	<b>0.00</b>	
<b>Total Score</b>	<b>Final Metric Score (1-5)</b>	<b>3.32</b>	<b>3.19</b>	<b>1.00</b>	<b>2.79</b>	<b>2.25</b>	<b>Total Points</b>
	<b>Metric points</b>	<b>3.32</b>	<b>9.57</b>	<b>1.00</b>	<b>6.98</b>	<b>5.63</b>	<b>26.49</b>

<b>2016 Annual Custom Ratings</b>		<b>Metric 1</b>	<b>Metric 2</b>	<b>Metric 3</b>	<b>Metric 4</b>	<b>Metric 5</b>	
<b>Direct Workproduct Review Score</b>	<b>Dispositions Score</b>	<b>2.50</b>	<b>1.84</b>	<b>0.00</b>	<b>0.72</b>	<b>2.09</b>	
<b>Review Process Score Enhancements</b>	<b>Technical &amp; Policy QC Increase</b>	<b>0.00</b>	<b>0.50</b>	<b>1.00</b>	<b>1.00</b>	<b>0.00</b>	
	<b>Implementation Increase</b>	<b>0.00</b>	<b>0.00</b>	<b>0.50</b>	<b>0.00</b>	<b>0.50</b>	
<b>Total Score</b>	<b>Final Metric Score (1-5)</b>	<b>2.50</b>	<b>2.34</b>	<b>1.50</b>	<b>1.72</b>	<b>2.59</b>	<b>Total Points</b>
	<b>Metric points</b>	<b>2.50</b>	<b>7.02</b>	<b>1.50</b>	<b>4.30</b>	<b>6.48</b>	<b>21.80</b>

Workpaper Scoring

2017 Annual Workpaper Ratings		Metric 1	Metric 2	Metric 3	Metric 4	Metric 5	
Direct Workproduct Review Score	SCG "-"	25%	100%	75%	50%	100%	
	SCG "+"	75%	0%	25%	0%	0%	
	SCG "Yes"	0%	0%	0%	50%	0%	
	Dispositions Score %	<b>75%</b>	<b>0%</b>	<b>25%</b>	<b>25%</b>	<b>0%</b>	
	Dispositions Score	<b>3.75</b>	<b>0.00</b>	<b>1.25</b>	<b>1.25</b>	<b>0.00</b>	
Review Process Score Enhancements	SCG "-"	17%	33%	0%	50%	0%	
	SCG "+"	67%	0%	80%	17%	0%	
	SCG "Yes"	17%	67%	20%	33%	100%	
	Process Score %	<b>75%</b>	<b>33%</b>	<b>90%</b>	<b>33%</b>	<b>50%</b>	
	Process Increase Score	<b>3.75</b>	<b>1.67</b>	<b>4.50</b>	<b>1.67</b>	<b>2.50</b>	
	Process Increase Weight	<b>0.50</b>	<b>0.50</b>	<b>0.50</b>	<b>0.50</b>	<b>0.50</b>	
Total Score	Final Metric Score (1-5)	<b>5.00</b>	<b>1.00</b>	<b>3.50</b>	<b>2.09</b>	<b>1.25</b>	Total Points
	Metric points	<b>5.00</b>	<b>3.00</b>	<b>3.50</b>	<b>5.23</b>	<b>3.13</b>	<b>19.85</b>

2016 Annual Workpaper Ratings		Metric 1	Metric 2	Metric 3	Metric 4	Metric 5	
Direct Workproduct Review Score	SCG "-"	50%	33%	28%	67%	31%	
	SCG "+"	20%	17%	0%	0%	0%	
	SCG "Yes"	30%	50%	72%	33%	69%	
	Dispositions Score %	<b>35%</b>	<b>42%</b>	<b>36%</b>	<b>17%</b>	<b>35%</b>	
	Dispositions Score	<b>1.75</b>	<b>2.09</b>	<b>1.81</b>	<b>0.84</b>	<b>1.74</b>	
Review Process Score Enhancements	SCG "-"	0%	14%	25%	57%	43%	
	SCG "+"	0%	0%	0%	0%	0%	
	SCG "Yes"	100%	86%	75%	43%	57%	
	Process Score %	<b>50%</b>	<b>43%</b>	<b>38%</b>	<b>21%</b>	<b>29%</b>	
	Process Increase Score	<b>2.50</b>	<b>2.15</b>	<b>1.88</b>	<b>1.08</b>	<b>1.43</b>	
	Process Increase Weight	<b>0.50</b>	<b>0.50</b>	<b>0.50</b>	<b>0.50</b>	<b>0.50</b>	
Total Score	Final Metric Score (1-5)	<b>3.00</b>	<b>3.17</b>	<b>2.75</b>	<b>1.38</b>	<b>2.46</b>	Total Points
	Metric points	<b>3.00</b>	<b>9.50</b>	<b>2.75</b>	<b>3.45</b>	<b>6.14</b>	<b>24.83</b>

## Explanations of scoring tables row entries

1. The row labeled with *IOU* “-“ lists the percent of workpaper reviews undertaken where the Commission 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 Commission 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 Commission 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 Commission 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 Commission 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 Commission 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.