

PUBLIC UTILITIES COMMISSION

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Date: August 21, 2017
 To: Southern California Gas Company
 From: Commission Ex Ante Review staff
 Cc: R.12-01-005 and R.13-11-005 Service Lists
 Subject: Final 2016 Efficiency Savings and Performance Incentive (ESPI) Ex Ante Review Performance Scores

Overview

The scores¹ contained in this memo are final, and Southern California Gas Company (SoCalGas) shall use the total final ex ante review performance points from the table below together with the weighting² for each category to calculate the 2016 ESPI ex ante review component award.

SCG 2016 ESPI Ex-Ante Review Performance Scores and Points		Workpapers				Custom			
Metric	Metric Area of Scoring	Max Points	Max Percent of Total Points	2016 Score	2016 Points	Max Points	Max Percent of Total Points	2016 Score	2016 Points
2	Content, Completeness, and Quality of Submittals	15	30%	3.17	9.50	15	30%	2.34	7.02
3	Proactive Initiative of Collaboration	5	10%	2.75	2.75	5	10%	1.50	1.50
4	Due Diligence and Quality Assurance/Quality Control Effectiveness	12.5	25%	1.38	3.45	12.5	25%	1.72	4.30
5	Responsiveness to Needs for Process and Program Improvements	12.5	25%	2.46	6.14	12.5	25%	2.59	6.48
Total		50	100%		24.83	50	100%		21.80

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 2017 after the utilities’ final 2016 savings claims are filed.

Custom Projects

¹ Pursuant to Decision (D).13-09-023, D.15-10-028 and D16-08-019, Commission staff and consultants completed the 2016 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”.

² 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 2016 savings claims and published for each utility the weights for the custom and deemed categories.

In the area of ex ante review for custom projects, on a positive note SoCalGas staff collaborated with Commission staff to accelerate projects that have potential to help mitigate the impacts from the closure of the Aliso Canyon natural gas storage facility, and continued to have productive discussions on complex projects. However, areas in need of improvement are those significant concerns that Commission staff highlighted in prior years that still remain. Those concerns include:

- Lack of evidence of program influence and low net-to-gross assessments,
- Inadequate calculation methodology and analysis approaches, and
- Insufficient measurement and verification plans.

Tackling program influence will require that SoCalGas staff and its review contractors, in consultation with Commission staff and its contractors, develop review procedures and eligibility criteria that must be applied during the early project identification and development stages. Program design and rule changes will need to be considered in this process. This requires coordination and collaboration among SoCalGas's engineering, product management, and program management staff, as well as third party implementers, to acknowledge the problems, develop a workable solution, and take action to implement the solution. Although Commission staff observed some improvements in SoCalGas staff's 2016 custom ex ante technical review activities, SoCalGas staff's improved efforts must be extended to penetrate the breadth of custom portfolio activities. Commission staff has seen either little or no action in the area by SoCalGas implementation staff and third party program implementation contractors.

In a related matter, during 2016 Commission staff became aware that some individual third party implementer contracts include very high and insufficiently limited compensation rates based upon first year gross ex ante savings estimates. Although this does not directly factor into the ESPI scoring, the Commission staff believes that the misalignment between the use of first year claimed gross savings for implementation team compensation and net savings for portfolio cost-effectiveness appears to be a primary reason why certain ex ante issues highlighted in past ESPI memos (e.g., baseline, measure eligibility) continue to persist. While SoCalGas has fewer third-party contractor implemented projects than other utility Program Administrators (PA), staff believes this issue is still relevant.

Workpapers

On a positive note, CPUC staff acknowledges and appreciates that SoCalGas staff has been responsive to CPUC staff requests relating to workpaper activities. We also observe SoCalGas staff efforts to directly adopt values within the central ex ante database. SoCalGas staff seeks out information, input and clarifications for its deemed measure workpaper development activities although these activities are limited in scope. In 2016, SoCalGas staff submitted just twelve new or revised workpapers.

As noted above SoCalGas staff responsiveness has several benefits. However, CPUC staff also sees room for improvement in SoCalGas staff's overall approach to work paper collaboration. Addressing these concerns will require SoCalGas staff to change some of the ways in which they develop workpapers and respond to Commission staff direction. Development of workpaper savings values should include access to raw data as well as full disclosure regarding how the data is manipulated to achieve the calculated savings. Additionally, when selecting and pursuing workpaper measures, SoCalGas staff should consider all influences over the likely savings, not just the technical potential over status quo technologies and practices. Research is required to critically examine the likely influence of the program over customer decisions to implement the proposed technology and determine whether proposed technologies are likely to be cost effective. In addition to program influence, workpaper development efforts must focus on identifying the likely standard practice looking forward, especially

for rapidly advancing technologies.

It is important to point out that Commission staff will consider opposing views on methods and values when a workpaper is under development; however, those methods and values must be accompanied by technical and market research and analysis supporting that the proposed alternatives will result in reasonable and reliable forward-looking savings estimates. For other areas, such as ex ante data and review, Commission staff emphasizes that the PAs are required to follow previous direction, even if Commission staff discover that direction has not been followed long after any prescribed review period has past. This policy applies to all ex ante development activities including workpaper values, ex ante data submissions and claims reporting.

The PAs provide ratepayer funding support to the California Technical Forum (CalTF) as well as invest staff and consulting resources participating on, and presenting to, the CalTF. Over the past two years, the PAs have utilized the CalTF as a resource for the review and input to their workpaper development process. Commission staff supports the PAs' efforts to garner additional input, review and quality assurance feedback on their workpaper activities, such as those available through the CalTF. However, Commission staff also notes that although the CalTF has implemented a process that has the potential to improve the level of due diligence and thus output quality of the PA workpaper efforts coordinated through the CalTF, the new process has yet to provide the expected improvement in terms of addressing primary ex ante development issues. Note that this is just an observation offered to improve the expenditure of ratepayer funds; it did not influence the ESPI score.

2016 ex ante activities, Commission staff findings

Custom Projects Ex Ante Reviews Discussion

In early 2016, Commission staff revised the custom projects ex ante review disposition template to include a categorization of the actions that staff requires the utility to address for the project under review. At the end of 2016, there were nine selected projects for ex ante review that SoCalGas staff had neither provided any documentation on, nor informed Commission staff of their status. Commission staff has waited for the initial documentation uploads to the CMPA ranging from 1,230 days for X456 to 150 days for SCG_0140. SoCalGas staff's slow response to upload project documentation after projects were selected for review led to fewer reviewed projects during 2016 and a poor score for ESPI Metric 1, Timeliness and Timing of Submittals. For the projects that Commission staff was able to review over the course of 2016, Table 1 summarizes the 21 action items requested of SoCalGas across six dispositions issued between January 1, 2016 and December 31, 2016.

Overall, the areas of general categories of issues noted have not changed from the 2016 mid-year ESPI feedback and ESPI reviews from previous years. In some cases, the number of action items identified in a specific category issue area may seem low when even though that issue area category remains a significant concern and requires much improved action by SoCalGas. For instance, as shown in Table 1, only a small percentage of the issues are associated with the Issues Related to Net Impacts and the Documentation Issues areas; however these areas still require attention by SoCalGas staff.

CPUC staff acknowledge 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 project to determine whether the utility has corrected issues from similar project types

that CPUC staff reviews identified in the past.

Table 1: Summary of Categorized Action Items

Issue Area	Action Category	Quantity	Percent of Total
Issues Related to Gross Savings Impacts	Analysis Assumptions	1	4.8%
	Calculation Method	2	9.5%
	Calculation Tool	1	4.8%
	M&V Plan	3	14.3%
	Revise to Match CPUC Savings Estimate	0	0.0%
	Subtotals	7	33.3%
Process, Policy, Program Rules	Baseline	1	4.8%
	CPUC Policy	0	0.0%
	Did Not Follow Previous CPUC Guidance	0	0.0%
	Eligibility	4	19.0%
	ER Preponderance of Evidence	0	0.0%
	EUL/RUL	3	14.3%
	Fuel Switching	0	0.0%
	Incentive Calculation	0	0.0%
	Maintenance	0	0.0%
	Measure Cost	0	0.0%
	Measure Type	1	4.8%
	PA Program Rules	0	0.0%
	Repair	0	0.0%
	Self-Generation	0	0.0%
	Subtotals	9	42.9%
Documentation Issues	Inadequate Response to Previous EAR	0	0.0%
	Missing Documents	1	4.8%
	Missing Required Information	0	0.0%
	Project Scope Unclear	0	0.0%
	Subtotals	1	4.8%
Issues Related to Net Impacts	NTG	3	14.3%
	Program Influence	1	4.8%
	Subtotals	4	19.0%
Grand Total		21	100.0%

Project Submittals

SoCalGas staff made a good effort to comply with the revised Custom Measures and Projects Archive (CMPA) Bi-monthly projects list submission process. SoCalGas staff’s use of the Commission staff checklist reduced many of the instances of incomplete initial project documentation submissions. However, SoCalGas staff has not been prompt to upload project documentation once an application is selected from the CMPA List. For example, for project SCG_X530, Commission staff found that SoCalGas staff was working with this customer for more than 10 months before documentation was submitted for Commission staff review.

Commission staff recognizes that during 2016 SoCalGas staff identified projects with potential issues and brought them up for discussion with Commission staff. SoCalGas staff identified a couple of potential industry practice study issues with Commission staff for discussions. In addition, SoCalGas staff provided a memo to Commission staff describing its program updates and internal compliance

review improvement processes for 2016. In the memo, SoCalGas staff indicates that their improvements has reduced response times, increased operational efficiency, and improved their internal collaboration. The memo also indicates that the SoCalGas Engineering team reviews adjusted the savings for 75 projects, reducing them savings 14% on average and disallowed seven ineligible projects. Commission staff recommends that SoCalGas staff track all projects reviewed and provide a summary of all results so that the results can be more directly mapped into the total custom portfolio and identify program activities which need closer scrutiny and modification. Additionally, SoCalGas staff provided a timely response to Commission staff's data request for information on third-party contracts and payments.

Program Influence and Net-To-Gross

Program influence needs to demonstrate that the energy efficiency program caused a net benefit for the ratepayers by motivating the customer to implement a costlier more efficient project than they were otherwise planning to implement absent the program intervention. Program influence may be in the form of either information or financial support or both. The information may be providing suggestions on alternative designs or alternative available higher efficiency products not already under consideration, or analysis of alternatives to demonstrate how the customer requirements can be met or exceeded by selecting an alternative. Financial influence is when the availability of incentive support to the customer directly becomes the deciding factor in the selection of a more efficient alternative solution to the one or ones that would otherwise be selected.

Issues related to program influence directly affect the scoring on ESPI Metrics 2, 4, and 5. Commission staff expects that SoCalGas staff will make a more substantial effort to provide documentation that demonstrates what the customer was planning to do when 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.

Commission staff expects to find 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. When there are substantial indicators or evidence both for and against program influence Commission staff expects to see a discussion of the evidence and why the evidence demonstrating program influence outweighs the evidence against. Too often project documentation provides little or no evidence of program influence beyond either a list of meetings attended or a report with a savings calculation also containing an inventory of contact dates. Most often the submissions either overlook the direct evidence against program influence or fail to discuss the relative importance of the various evidence supplied, and conclude that the case for program influence is established from a one-sided presentation of meager, if not underwhelming, program influence statements.

For project X530, an oil refining process project, Commission staff found no supportable documentation of program influence in this project. Additionally, this customer's incentive of \$1 million was set early in the application process. Interestingly, the customer only pays SoCalGas for the transportation of natural gas but its incentive payment is based on both transportation and commodity. SoCalGas staff must re-evaluate its incentive structure such that the incentive to the customer reflects the customer's contribution to the Public Purpose Funds.

For SCG_0033, a process dryer project, SoCalGas staff allowed the customer to proceed before the

application was prepared, granting an exception to its program rules. The exception was signed on the same day that the customer proceeded to implement the project. Commission staff did not find any evidence of program influence for this project and questions the appropriateness of SoCalGas staff's decision.

For SCG_0108, a new oven installation project, Commission staff concluded that the project had little program influence. Commission staff could not identify any documentation that demonstrated that the SoCalGas program influenced this customer to adopt a costlier, more efficient option than they were planning to do absent the PA's intervention.

SoCalGas needs to find ways to change program eligibility rules or incentive rates to reduce the dollars paid via incentives to customers for projects planned to be implemented independent of the program activity. For example, Savings By Design program offers incentives for exceeding T24 by a margin and pays the same incentive rate for measures of a similar end use. This program could remove standard practice measures that exceed T24 from the margin and savings calculation and/or offer much reduced incentives for lower efficiency measures compared to higher efficiency. Alternatively, the minimum margin above T24 could be increased to account for standard practice at least by building type or size. For chiller replacements in retrofit projects, a standard or typical practice should be established as the baseline. For packaged HVAC, incentives could be offered only for units at a minimum 20% or more above code. For LED lighting, higher efficacy products should be offered higher incentives with a minimum efficacy requirement that selects the upper half of the market rather than providing incentives for every product available.

Identifying Measure Eligibility and Type

For project SCG_X530, Commission staff found that SoCalGas proposed to consider the complex modifications of an oil refining process as a single retrofit add-on measure type. After review of the initial project documentation, Commission staff requested additional information and determined that the project consisted of four separate measures, two of which were found to be normal replacement measure types that are standard practice and ineligible for program participation. Commission staff has found that implementers often used the retrofit add on measure type designation as a means to claim an in-situ equipment baseline to increase first year savings. SoCalGas staff must instruct its reviewers to carefully assess the proposed project modifications and ensure that the submitted project documentation supports the selected measure type.

Commission staff expects the PA to identify and remove ineligible measures and projects with no evidence of program influence early in the program application process. These objectives work to minimize the waste of ratepayer resources and focus those resources on projects likely to provide incremental savings and the associated net benefits. SoCalGas staff may wish to consult with PG&E staff that is in the process of implementing strategies to accomplish this objective.

Calculation Methods and M&V plans

Commission staff observes that not providing a complete and concise description of calculation methodologies and M&V requirements may lead to inaccurate savings estimates and this remains a weakness for many projects. Issues related to accurate calculation methodologies and measurement and verification plans directly affect the scoring on ESPI Metrics 2 and 4.

As an example, for projects SCG_034 and SCG_035, which entailed the proposed installation of heat recovery equipment, Commission staff found that there were neither specifications for the measurement equipment nor a complete discussion of the proposed techniques required in the M&V plan. Considering the magnitude of the expected savings impacts, Commission staff concluded that the M&V plan lacked rigor and did not provide adequate specifications that require the customer to collect data using calibrated data loggers in useful time increments to analyze the savings impacts. There were too many unspecified parameters in the M&V plan which could lead to less than optimum execution of the M&V for these projects.

Baseline and Industry Standard Practice

Other lingering legacy issues include baseline and industry standard practice determinations. It is not sufficient to simply state that a proposed installation is more energy efficient than a “baseline” measure in either a “Baseline” or “Standard Practice” document or report without providing appropriate supporting materials. Often the “studies” cited are more representative of current saturation of installed equipment thus representing the existing condition rather than recent orders or installations that represent current typical practice.. SoCalGas staff will need to work further on this topic and broaden the awareness among both their implementation staff and contractors on the proper procedures for establishing baselines.

For example, SCG_0108, the proposed installation of new ovens, CPUC staff found that the equipment ordered by the customer seemed to include features offered as standard across many other vendor’s product lines. There was no evidence that the customer’s existing oven, proposed as the standard practice baseline, represented the standard performance of equipment currently sold in the industry. This is a typical example of an inappropriate Industry Standard Practice selection leading to an incorrect baseline assignment. As with the common incorrect selection of the REA measure type and the assignment of the in-situ as the Industry Standard Practice, Commission staff commonly observes the selection of the early retirement measure type with no credible supporting evidence of program influence. Commission staff finds these practices result in an inappropriate increase in first year savings and thus payments to customers and implementers. SoCalGas staff must take steps to ensure an unbiased review of evidence is used to establish the proper technical baseline and resulting proposed savings and incentive amounts.

Early Collaboration

Although SoCalGas staff brought forth one early opinion project review request to Commission staff, we are concerned that there is a lack of SoCalGas staff due diligence review prior to seeking an early opinion request. For SCG_X544, SoCalGas did not identify early in the project development that renewables such as geothermal projects are not a Commission authorized energy efficiency measure.

SoCalGas staff occasionally brings Commission staff projects for an early opinion before the project is listed on the CMPA list as ready for review. Often, however, those projects have already progressed to the point of having preliminary studies with savings and incentive estimates provided to the customer. Additionally, despite the request for early opinion, SoCalGas staff seems to have already formed a very solid opinion on the projects brought forward and resists any Commission staff opinions especially relating to program influence and measure eligibility or classification. It seems as though SoCalGas is only seeking to confirm its own view of the project rather than discuss the merits of the evidence or proposed approaches for savings estimation.

On projects with both natural gas as well as electric impacts SoCalGas staff must better coordinate with PG&E and SCE on such joint projects. Commission staff observed that the utilities appear to work in silos and are not fully aware of all the assumptions made for projects with both natural gas and electricity impacts. In addition, SoCalGas appears to neglect accounting for increases in natural gas usage due to interactive effects from an electric utility's energy efficiency projects, and yet it seeks to claim full natural gas savings credit for potential natural gas use reduction projects. This is a policy issue that needs to align with accounting of the statewide portfolio impacts.

Following adopted review process procedures

SoCalGas staff must clarify with its program staff and 3rd party implementers that incentive agreements are not to be signed until a project has gone through SoCalGas staff's internal project quality control review, and the Commission staff's ex ante review if the project was selected for review. For project SCG_X530 SoCalGas authorized the customer to order equipment before the feasibility study was uploaded for Commission staff review.

Contracting issue- Third-party Performance Payments:

In 2016, Commission staff became aware that some projects seemed to have unexpectedly large performance payment rates for third-party contractors. Commission staff has concerns that the high payment rates, especially for medium and large projects, may provide negative incentives to solving the problems discussed earlier. Third-party performance payment caps on a per application basis are not included in the current third-party contracts, where the customer incentive is capped. Uncapped third-party payment terms, for medium and large projects, can result in performance payments to third-party implementers that exceed incentive payments to customers - in some cases significantly. Commission staff further believes that uncapped per project performance payments using payments rates based on first year gross savings encourages pursuit of overly optimistic savings claims. Commission staff believes that the existing third-party compensation structure has contributed to recurring problems such as incorrect baseline assignments, unrealistic ex ante savings claims and pursuit of projects with little or no evidence of program influence; the very same concerns that we have raised year after year. The Ex Ante review team's observation is that the pursuit of large performance payments has created an environment in which implementers have tended to maximize the ex ante savings estimates at the expense of compliance with CPUC policy and appropriate and accurate assessment of program influence, measure eligibility or classification and savings impacts.

As noted above, Commission staff believes that the existing third-party contract terms and conditions do not promote net and lifetime savings attainment³. Commission also staff believes that recent policy changes regarding the use of existing conditions baselines may increase the first-year savings impacts significantly for certain measures resulting, under current contract terms, in a directly proportional increase in third-party performance payments and customer incentives with little accompanying increase in net benefit to the ratepayers. Although staff has emphasized these problems with the PAs over the past year and requested action, SoCalGas staff has not provided even an outline of a plan to address the problem in a timely manner.

³ This concern is not exclusive to third-party contracts. Commission staff believes that basing both utility staff's internal goals as well as customer incentives and third-party implementer payments on first year gross savings cannot result in a focus on long term net portfolio performance improvement.

To demonstrate the issue, typical example medium and large project comparative customer incentives and the related Commission staff estimated third-party performance payments observed in 2016 are provided below.

- SCG_2854, the proposed customer incentive for this kiln project was \$275,000 and the estimated performance payment to the third-party implementer was \$547,412
- SCG_0129, the proposed customer incentive for this kettle energy storage project was \$130,860 and the estimated the performance payment to the third-party implementer was \$107,305.
- SCG_0130, the proposed customer incentive for this insulation project was \$64,756 and the estimated performance payment to the third-party implementer was \$53,100.

Although Commission staff agrees that third-party implementer activities deserve support, many of the payments observed do not appear to be reasonable or commensurate with the effort, cost or contributions made to the projects. In most cases examined, the third-party implementer is not performing the retrofit or projects work but is undertaking marketing activities to identify the project, sometimes design assistance or vendor product analysis, technical analysis to support submitting the project to the PA for an incentive, and pre/post installation analysis and measurements (if required) to estimate savings. Examination of the submitted documents for these projects does not demonstrate levels of effort that justify the levels of payments and, in many cases the quality of the work and customer plans independent of the third-party implementer do not support a payment for “performance.”

Workpapers Ex Ante Reviews Discussion

In 2016 Commission staff began to hold regular workpaper meetings with PAs, typically every other week, to discuss topics related to development of workpapers and deemed measures. SoCalGas staff has attended meetings organized and led by SDG&E staff. SoCalGas has provided input into meeting agendas which assists Commission staff with understanding SoCalGas’s status and progress. For some existing workpapers, SoCalGas has shown noticeable effort to keep the workpapers and programs current and to comply with Commission staff direction. See the section “Notable Accomplishments” below for some specific examples of areas where SoCalGas staff’s efforts are meeting Commission staff expectations as defined in the ESPI metrics. Commission staff remains concerned that SoCalGas staff has not shown effort to constructively act on Commission staff guidance with regard to new workpaper development. See the section “Areas of Concern” below for some specific examples of areas where SoCalGas’s efforts fall far short of Commission staff expectations as defined the ESPI metrics.

Example Notable Accomplishments:

Commission staff calls attention to the productive process that SoCalGas staff went through with the ex ante review team regarding the SoCalGas water heater program in 2016. Commission staff has noted in previous ESPI discussions that SoCalGas missed the due date for water heater workpapers of June 30th apparently due to additional work needed to properly define the measures to support adoption across the state. That issue aside, Commission staff appreciates the proactive approach that SoCalGas staff took in February to issue a memo responding to our draft review, schedule discussion meetings, and ensure that they understand the requirements within the natural gas water heater disposition.

Example Areas of Concern:

In 2016, SoCalGas staff's workpaper development activities were limited to three new workpapers as well as adjusting workpapers to reflect new codes and responding to Commission staff's detailed reviews. The majority of Commission staff's interaction with SoCalGas's deemed program was in regards to the workpaper for Residential Smart Thermostats (WPSCGREHC160624A). In 2016, SoCalGas staff submitted the workpaper three times and CPUC staff issued two detailed reviews on it. Commission staff's major guidance regarded the need for SoCalGas staff to gain detailed technical information and to perform their own assessment of the gas savings potential without relying on the claims of the technology's manufacturer. Over the course of many meetings, submissions, memoranda, and discussions, some of the interim calculations made by the technology manufacturer were reviewed along with the calculation methods. Commission staff repeatedly asked for information and SoCalGas staff repeatedly provided less than what was requested.

Unfortunately, neither Commission staff nor SoCalGas staff were satisfied with the workpaper that eventually received interim approval. Commission staff feels that the many man-hours invested (by all parties) in development of this measure were primarily spent in meetings, discussions and communications without any further analysis, development or refinements to the ex ante values. In the end, and in the absence of any progress after months of meetings and discussions, Commission staff issued direction for the final values. When faced with this situation in the future, Commission staff expects SoCalGas staff to develop deemed measures based on their own research identifying the likely standard practice looking forward and the likely influence of SoCalGas's program over customer decisions. Additionally, Commission staff expects that SoCalGas staff will improve their collaboration process to limit the number of hours spent in meetings that are repetitions of previous discussions with no new information.

The PAs have utilized the CalTF as a resource for workpaper development. Commission staff acknowledges that the ESPI process is not an evaluation of the CalTF. However, the PAs have chosen to devote resources to participate in, and provide funding to the CalTF; this costs both ratepayer dollars, PA staff and consultant resources. For this reason, Commission staff believes it is incumbent upon the PAs to guide the CalTF process in a manner that results in the desired and expected improvements to the overall workpaper ex ante development activity. Commission staff observes similar problems with workpapers and workpaper development efforts that have utilized the CalTF review process as have been noted over several years of ESPI memos. Commission staff agrees that a separate, collaborative, review and development body, such as the CalTF, could improve and expedite workpaper development and review. However, in order for the CalTF to be successful, PAs should provide guidance to ensure that input and comments from the CalTF are oriented toward addressing the most critical ex ante review issues. This will require that the CalTF undertake a more in-depth review and critique of workpaper assumptions, analysis methods and results. Additionally, as noted in the third-party contracting discussion, use of CalTF member reviewers who have a financial stake in the outcome of the review presents a potential conflict that may prevent important issues from being addressed by their review. Commission staff suggests that the CalTF may need to institute procedures or rules such that potentially conflicted members neither drive the review process of such workpapers nor should they participate in "voting" relative to such a workpaper.

The Scoring:

The 2016 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 on 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 2017 based upon the PA's filed final 2016 savings claims.

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 2015 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 Workproduct 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.⁴ If not applicable to a metric, that item was not used in the final score development for the metric. If an item was determined to have activity applicable to a metric, the item was 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 was then assigned a score percentage level of 0%, 50% and 100%, respectively. The assigned percentage scores were averaged across all the reviewed items. This resulted in 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

⁴ 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").

implementation in 2016 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.

Individual custom project level disposition scoring is provided in Attachment B and individual workpaper level disposition scoring as well as related workpaper activities is provided in Attachment C.

In the custom scoring process Commission staff added points as “Enhancements” in the area of Policy/Technical QA/QC for Metrics 2, 3, 4 and 5 to reflect SoCalGas staff’s positive efforts in these metric area. Commission staff recognizes SoCalGas staff’s efforts to collaborate with Commission staff to accelerate projects that have potential to help mitigate the impacts from the closure of the Aliso Canyon natural gas storage facility, and continue to bring forth productive discussions on complex projects. Unlike other PA’s, where Commission staff has observed ongoing efforts for continual improvements to their internal technical review processes, SoCalGas staff has not shown an inclination to undertaken noticeable actions for which Commission staff finds enhancements to scores appropriate.

Additionally, Commission staff has observed little effort in the program implementation area outside of the mentioned Aliso Canyon activities and thus very minimal “Review Process Score Enhancements” were assigned as an “Implementation Increase.” The absence of such evidence of improvement on the program implementation side and limited such efforts in the technical review area is disappointing and Commission staff urges SoCalGas staff to take such actions as outlined earlier so as to allow further improvement in performance and scoring during 2017.

Workpaper scores are also comprised of the two components, “Direct Workproduct Review Score” and “Review Process Score Enhancements.” Direct review items include workpaper dispositions, preliminary reviews, reviews of ex ante data submissions and direct interaction between Commission and PA staff on workpaper development issues. 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. The separate process scoring provides an avenue for assessing overall QA/QC processes and procedures put into place by SoCalGas.⁵ 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. For example, SoCalGas’ smart thermostat workpaper was the only

⁵ 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.”

activity given a weight of 1.0 since so much staff effort (both Commission and SoCalGas) was directed toward development of this workpaper. All other workpaper efforts (a total of 15 additional scored items) were assigned lower weights of either 0.25 or 0.50.,

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.

If you have any questions or comments about the feedback or final scores, please contact Peter Lai (peter.lai@cpuc.ca.gov). Note that pursuant to D.13-09-023, Commission staff will schedule a time with SoCalGas staff to discuss its final scores.

Metric		Workpapers				Custom			
		Max Points	Max Percent of Total Points	2016 Score	2016 Points	Max Points	Max Percent of Total Points	2016 Score	2016 Points
1	Timing and Timeliness of Submittals	5	10%	3.00	3.00	5	10%	2.50	2.50
	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.								
2	Content, Completeness, and Quality of Submittals	15	30%	3.17	9.50	15	30%	2.34	7.02
	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.								
3	Proactive Initiative of Collaboration	5	10%	2.75	2.75	5	10%	1.50	1.50

<p>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.</p>									
<p>4 Program Administrator’s Due Diligence and Quality Assurance/Quality Control Effectiveness</p>	<p>12.5</p>	<p>25%</p>	<p>1.38</p>	<p>3.45</p>	<p>12.5</p>	<p>25%</p>	<p>1.72</p>	<p>4.30</p>	
<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>									
<p>5 Program Administrator’s Responsiveness to Needs for Process and Program Improvements</p>	<p>12.5</p>	<p>25%</p>	<p>2.46</p>	<p>6.14</p>	<p>12.5</p>	<p>25%</p>	<p>2.59</p>	<p>6.48</p>	

<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>	50	100%	24.83	50	100%	21.80
Total						

2016 Efficiency Savings and Performance Incentive Custom Projects Ex Ante Performance Scores

The table below lists the ID numbers associated with each disposition. The PA may refer to the individual dispositions for more detailed descriptions of the specific actions staff required for each application. All custom project were scored using the old metric system since most scoring was completed before the new metrics were adopted, The scores from the old metrics were mapped into the new metric using the relationship provided in Appendix A of the ALJ Ruling dated 8 June 2016 in R.13-11-005 and included at the end of this Attachment. 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.

Summary Count by Old Metric													
	1a	1b	2	3	4	5	6a	6b	7	8	9	10	
Yes	1	2	5	4	0	2	1	1	0	1	0	3	
No	5	4	0	0	6	0	5	0	5	5	5	0	
+	0	0	1	1	0	1	0	0	0	0	0	0	
-	0	0	0	1	0	3	0	5	1	0	1	3	
Scoring Detail by Old Metric													
CPUC ID	1a	1b	2	3	4	5	6a	6b	7	8	9	10	CPUC Staff Summary (with specific references to metrics)
X209	No	No	Yes	Yes	No	-	Yes	Yes	No	No	-	-	Reasonably comprehensive and complete submittals. Failed to incorporate ex post findings regarding the measure EUL, should not have applied DEER pump EUL to this unique project. Reasonable review effort however missed some important details on clarification of the calculation method and M&V plans. The documentation seems to largely be "cut and paste" from past projects with slightly different measures, leading to a lack of clarity on some important issues which CPUC Staff have required be clarified in a documentation resubmittal.

0033 1st	No	No	+	+	No	+	No	-	No	No	No	-	Very comprehensive and well detailed project documentation describing a complex process. Good supporting documentation. However, SoCalGas does not understand how to calculate the EUL for REA measures. Both measures seem to have baseline issues with possible error in the analysis of measure 1 and questionable classification of measure 2 as an energy efficiency measure. The M&V plan may be reviewed at a later date.
0033 2nd	Yes	Yes	Yes	Yes	No	Yes	No	-	No	Yes	No	Yes	SoCalGas has responded in a reasonable time frame considering the complexity of this project. SoCalGas provided comprehensive submittals and addressed common ex ante process issues. SoCalGas has promoted measure 2 without regard for accepted engineering principals (mass and energy balance). SoCalGas has provided a detailed response to issues discussed with CPUC Staff. Overall SoCalGas response has been satisfactory with the exception of the eligibility issues for measure 2.

0034 1st	No	No	Yes	Yes	No	-	No	-	No	No	No	Yes	<p>The "placeholder" calculations for this project are not well documented and are difficult to follow. SoCalGas' M&V plan for this project is a good example of comprehensive well documented savings analysis methodology. CPUC Staff required some modifications and clarifications to the M&V approach. The SoCalGas' measurement approach for the project lacked rigor, and CPUC Staff required the use of data loggers and shorter measurement intervals. There are too many unspecified parameters in the M&V plan which may lead to less than optimum execution of the M&V for this project.</p> <p>SoCalGas program influence is unclear- it appears that the equipment vendor may have developed this project and involved SoCalGas to help move the project ahead. CPUC Staff contacted the AQMD and did not find this customer having any relevant compliance issues.</p>
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0035 1st	No	No	Yes	-	No	Yes	No	-	No	No	No	Yes	<p>The "placeholder" calculations for this project are not well documented and are difficult to follow. SoCalGas has not provided the technical review for this project. The technical review submitted with the documents uploaded to the CMPA is for the same measure at another customer facility (5001256832).</p> <p>The SoCalGas' M&V plan for this project is a good example of comprehensive well documented savings analysis methodology. CPUC staff required some modifications and clarifications to the M&V approach. SoCalGas' measurement approach for the project lacked rigor, and CPUC Staff required the use of data loggers and shorter measurement intervals. There are too many unspecified parameters in the M&V plan which may lead to less than optimum execution of the M&V for this project.</p> <p>SoCalGas program influence is unclear- it appears that the equipment vendor may have developed this project and involved SoCalGas to help move the project ahead. CPUC staff contacted the AQMD and did not find this customer having any relevant compliance issues.</p>
0108 1st	No	Yes	Yes	Yes	No	-	No	-	-	No	No	-	<p>SoCalGas provided timely responses to CPUC Staff questions. The documentation was comprehensive and most of the required information was included in SoCalGas' submission. SoCalGas needs to pay more attention to baseline and program influence as has been pointed out to SoCalGas by CPUC Staff in several previous EARs and ongoing discussions.</p>

The table below provides the mapping from pre-2016 ESPI EAR performance scoring metrics to 2016 ESPI EAR performance scoring metrics.

Multiple old metrics when mapped into a single new metric are done so with equal weighting for each of the old metric. Thus, if two old metrics are mapped into a single new metric the scores

in the old metrics are each given 50% weight in the new metric. When five old metrics are mapped into a single new metric the scores in the old metrics are each given 20% weight.

Pre 2016 CUSTOM PROJECTS EX ANTE REVIEW METRICS		2016 CPUC Adopted EX ANTE METRICS	
Metric 1a	Timeliness of action in the implementation of ordered ex ante requirements in the pre-submittal/ implementation phase: Timing of disclosure in relation to reporting.	Metric 1	Timeliness and Timing of Submittals Timely submittals: all lists, inventories, plans, studies, workpapers and project/measure documentation; timing and advanced announcement of submittals (spreading out submission when available rather than holding and turning in large batches); timely follow-up PA responses to review disposition action items including intention to submit/re-submit with proposed schedule.
Metric 1b	Timeliness of action in the implementation of ordered ex ante requirements in the post-submittal/ implementation phase: Timing of responses to requests for additional information.		
Metric 3	Comprehensiveness of submittals.	Metric 2	Content, Completeness and Quality of Submittals Completeness, appropriateness, comprehensiveness, accuracy, and clarity of submittals. Submittal adherence to CPUC policies, Decisions, and prior CPUC Staff dispositions and/or guidance. Do the submittals include all materials required to support the submittal proposed values, methods and results. Is the project or measure clearly articulated. Are proposed or utilized methods clearly explained including step-by-step method or procedure descriptions. Will the proposed or utilized approach provide accurate results. Are all relevant related or past activities and submittals appropriately noted or disclosed, analyzed or discussed. Are the pros/cons of alternate possible approaches or conclusions discussed to support that the chosen one is most appropriate.
Metric 5	Quality and appropriateness of project documentation (e.g., shows incorporation of Commission policy directives).		
Metric 7	Use of recent and relevant data sources that reflect current knowledge on a topic for industry standard practice studies and parameter development that reflects professional care, expertise, and experience.		
Metric 8	Thoughtful consideration, and incorporation, of CPUC comments/inputs. In lieu of incorporation of comments/input, feedback on why comments/input were not incorporated.		
Metric 9	Professional care and expertise in the use and application of adopted DEER values and DEER methods.		

<p>Metric 4</p>	<p>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.</p>	<p>Metric 3</p>	<p>Proactive Initiation of Collaboration PA efforts to bring either measures, projects, studies, questions, and/or savings calculation methods and tools to CPUC Staff for discussion in the early formative stages, before CPUC Staff review selection. In the case of tools, before widespread use in the programs. 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.</p>
<p>Metric 6a</p>	<p>Depth of IOU quality control and technical review of ex ante submittals: Third party oversight.</p>	<p>Metric 4</p>	<p>PA Due Diligence and QA/QC Effectiveness 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>
<p>Metric 6b</p>	<p>Depth of IOU quality control and technical review of ex ante submittals: Clarity of submittals and change in savings from IOU-proposed values not related to M&V.</p>		
<p>Metric 10</p>	<p>Ongoing effort to incorporate cumulative experience from past activities (including prior Commission staff reviews and recommendations) into current and future work products.</p>	<p>Metric 5</p>	<p>PA Responsiveness to Needs for Process & Program Improvements (Course Corrections) 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</p>

<p>Metric 2</p>	<p>Breadth of response of activities that show an intention to operationalize and streamline the ex ante review process.</p>	<p>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>
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2016 Efficiency Savings and Performance Incentive Workpapers Ex Ante Performance Scores

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.

Direct Review - Workpaper Submissions Without Reviews Issued in 2016							ESPI Metrics				
WP ID	Rev	Title	Comments	Weight	1	2	3	4	5		
WPSCGNRWH 150827A	2	Laminar Flow Restrictors	Review waived – Interim approval	0.5	no	yes	yes	yes	no		
WPSCGNRWH 120618A	3	Faucet Aerators for Bathroom/Kitchen Sinks in Residential Buildings	Review waived – Interim approval	0.5	+	+	yes	yes	no		
WPSCGREHC 160624A	4	Residential Smart Thermostat	Detailed review – resubmit								
SWWH001	0	Auto-Diverting Tub Spout with Thermostatic Shut-off Valve	Review waived – Interim approval	0.5	+	no	no	no	no		
WPSCGNRWH120206B	6	Tankless Water Heaters For Commercial Applications	Review waived – Interim approval	0.25	-	no	yes	no	yes		
WPSCGNRWH120206A	9	Storage Tank Water Heaters for Commercial and Industrial Applications	Review waived – Interim approval	0.25	-	no	yes	no	yes		
WPSCGNRWH120206C	6	Commercial Hot Water Boilers	Review waived – Interim approval	0.25	-	no	yes	no	yes		
WPSCGREWH130613A	1	Central Storage Water Heaters for Multifamily Residential Applications	Review waived – Interim approval	0.25	-	no	yes	no	yes		
WPSCGREWH120919A	3	Tankless Water Heaters for Single Family and Multifamily Applications	Review waived – Interim approval	0.25	-	no	yes	no	yes		
WPSCGNRWH160726A	0	Heat-Recovery Rooftop Unit (HR-RTU)	Review waived – Interim approval	0.5	yes	no	no	no	no		
Direct Review - Workpaper Detailed Reviews											
WPSCGREHC 160624A	4	Residential Smart Thermostat	Main issue is the amount of savings per thermostat. Authorized savings are much lower than SoCalGas’ proposal. Additionally, eligibility requirements are	1	-	-	-	-	-		

WPSCGNRWH 120206A	8	Storage Tank Water Heaters for Commercial and Industrial Applications	adjusted via disposition. Main problem with all workpapers is SoCalGas' approach to defining statewide energy impacts. The workpapers propose averaging DEER data together to reduce the number of EnergyImpacts. This is not allowed since it is inconsistent with DEER methods. Also, workpaper costs do not include changes to installation such as flue modifications to handle the condensate.	0.25	yes	yes	yes	-	yes
WPSCGNRWH 120206B	5	Tankless Water Heaters For Commercial Applications		0.25	yes	yes	yes	-	yes
WPSCGNRWH 120206C	5	Commercial Hot Water Boilers		0.25	yes	yes	yes	-	yes
WPSCGREWH 120919A	2	Tankless Water Heaters for Single Family and Multifamily Applications		0.25	yes	yes	yes	-	yes
WPSCGREWH 130613A	0	Central Storage Water Heaters for Multifamily Residential Applications		0.25	yes	yes	yes	-	yes

Direct Review - Workpaper Preliminary Reviews										
WP ID	Rev	Title	Comments	Weight	1	2	3	4	5	
- none -			No preliminary reviews have been incorporated into the workpaper scoring							

Direct Review - Unresolved Workpaper Preliminary Reviews										
WP ID	Rev	Title	Comments	Weight	1	2	3	4	5	
- none -			At this time there are no unresolved preliminary reviews.							

Direct Review - Completed Ex Ante Data Reviews										
WP ID	Rev	Title	Comments	Weight	1	2	3	4	5	
- none -			No ex ante data reviews have been incorporated into the workpaper scoring							

Direct Review - Other Direction										
WP ID	Rev	Description	Comments	Weight	1	2	3	4	5	
Statewide		DHW Fixture Disposition & 2016 code update workpaper for faucet aerators. EAR team provided DHW fixture definitions in October 2015. The ex ante data matches the 2013 DHW fixture disposition. EAR team requested that PAs align workpapers to these statewide MeasureIDs.	No apparent progress. The submitted workpaper did not use the statewide measure IDs. Also, it did not update the code standard energy savings calculations.	0.25	-	no	-	no	no	

Process Review

1	Updates to Unreviewed Workpapers Based on Other Reviews: Initiative of SoCalGas to examine previous workpaper preliminary reviews or dispositions and use that information to identify and update other workpapers that may have similar issues.	1	yes	yes	no	yes	no
2	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	1	no	yes	-	-	yes
3	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?	1	no	no	no	-	-
4	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.	1	no	yes	no	-	-
5	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.	1	yes	yes	yes	-	yes
6	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.	1	yes	yes	yes	yes	yes
7	Alignment of workpaper narrative with submitted ex ante data: The descriptions of implementations, measures, technologies and costs should align with the data submitted. A typical observed problem is a description of multiple delivery types in a workpaper without submissions of the implementations in the ex ante data. Since the	1	yes	-	no	no	-

ex ante data will eventually be the source for cost effectiveness values, CPUC staff will not approve workpapers where ex ante data is not included that matches implementations and measures described in the narrative of the workpaper.

8 Completeness of ex ante data on initial review: Detailed level of completeness and whether it can be uploaded to the ex ante database for successful generation of cost effectiveness values.

1	yes	yes	yes	yes	yes
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2016 Annual Custom Ratings		Metric 1	Metric 2	Metric 3	Metric 4	Metric 5	
Direct Workproduct Review Score	SCG "-"	0%	40%		71%	25%	
	SCG "+"	0%	13%		0%	8%	
	SCG "Yes"	100%	47%		29%	67%	
	Dispositions Score %	50%	37%	0%	14%	42%	
	Dispositions Score	2.50	1.84	0.00	0.72	2.09	
Review Process Score Enhancements	Technical & Policy QC Increase	0.00	0.50	1.00	1.00	0.00	
	Implementation Increase	0.00	0.00	0.50	0.00	0.50	
Total Score	Final Metric Score (1-5)	2.50	2.34	1.50	1.72	2.59	Total Points
	Metric points	2.50	7.02	1.50	4.30	6.48	21.80

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 %	35%	42%	36%	17%	35%	
	Dispositions Score	1.75	2.09	1.81	0.84	1.74	
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 %	50%	43%	38%	21%	29%	
	Process Increase Score	2.50	2.15	1.88	1.08	1.43	
	Process Increase Weight	0.50	0.50	0.50	0.50	0.50	
Total Score	Final Metric Score (1-5)	3.00	3.17	2.75	1.38	2.46	Total Points
	Metric points	3.00	9.50	2.75	3.45	6.14	24.83

Explanations of scoring tables row entries:

1. The row labeled with *IOU* “-“ lists the percent of custom project reviews undertaken in 2016 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 custom project reviews undertaken in 2016 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 custom project reviews undertaken in 2016 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 in 2016 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 during 2016 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 in 2016 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 Workproduct 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.