PUBLIC UTILITIES COMMISSION

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Date:	March 27, 2015
To:	Pacific Gas and Electric
From:	CPUC Ex Ante Review Staff
Cc:	R.12-01-005 and R.13-11-005 Service Lists
Subject:	Final 2014 Efficiency Savings and Performance Incentive Ex Ante Review Performance Scores

Pursuant to Decision (D).13-09-023, Commission staff and consultants completed the 2014 Efficiency Savings and Performance Incentive (ESPI) mechanism ex ante review performance scoring as prescribed in Attachments 5 and 7 of D.13-09-023. The scores contained in this memo are final and PG&E shall use the total final score of 53 out of 100, as presented below, to calculate the 2014 ESPI ex ante review component award. The final score is explained in more detail in Attachment A to this memo.

On July 15, 2014, Commission staff provided its 2014 mid-year feedback to PG&E pursuant to Decision (D).13-09-023. PG&E's workpaper activities in 2014 demonstrate a clear intention to collaborate with Commission staff, particularly on high profile workpapers and the Ex Ante Database. It was noted that staff had not reviewed the workpapers at that time and, as such, staff elected not to provide an individual assessment of each collaboration activity. The body of work considered in the mid-year feedback was limited to the discussions and meetings staff and PG&E had regarding workpaper development. Staff found that it was premature to provide an assessment of the discussions and meetings without consideration of the quality of the final workpaper deliverables.

Commission staff indicated in the mid-year feedback that PG&E's custom projects activities had ranged widely in terms of quality of submittals and responsiveness to Commission staff guidance and requests. Commission staff noted that PG&E was not following Commission directions and policies, and had poor quality control over installation report packages; for instance, of the 27 projects for which final savings were approved, 19 required final savings to be adjusted. PG&E also needed improvements in conducting industry standard practices studies.

PG&E's custom projects activities in 2014 have ranged widely in terms of quality of submittals and responsiveness to Commission staff guidance and requests. Industrial retrocommissioning (IRCx) projects have been particularly problematic and staff made adjustments to the final savings on a number of projects.

Attachments B and C of this memo provide the rationale Commission staff and consultants used for the final scoring. Attachment D provides a summary and comparison of dispositions issued during the custom projects review process in 2014 and 2013.

For the 2014 ex ante activities, Commission staff finds the following:

Workpapers:

Commission staff notes that PG&E's workpaper activities for 2014 are a mix of positives and areas that require improvement. On the positive side, PG&E has increased efforts to respond to certain Commission directives. PG&E reaches out to Commission staff earlier and more frequently to collaborate on new projects or substantial revisions to existing workpapers. PG&E has also made strides toward submitting workpaper ex ante values in the ex ante database format, which will ultimately serve to streamline review and approval of ex ante values in the future.

However, as Commission staff digs deeper into the workpapers and the associated measure developments and data, we continue to identify areas where improvement in due diligence and application of direction are needed. For instance, direction from previous dispositions is often not considered in new and revised workpapers. Application of Commission policy related to high NTG values, to-code measures, and early retirement (ER) are often not well justified / documented.

Recently published evaluation reports document the continued decline of gross and net realization rates of many deemed measures. The ESPI ex ante performance award is intended to provide incentives to IOUs to improve ex ante submissions such that these savings estimates are borne out in the ex post evaluations. Many of the activities recently introduced by PG&E do indeed address the specific process-oriented metrics of the ESPI, but Commission staff is concerned that PG&E's efforts have yet to result in final workpapers that show improvement in consideration and incorporation of Commission policy and direction, as described in more detail in Attachment B. PG&E is an active participant in, and the lead proponent of, the California Technical Forum (CalTF) which Commission staff views as a positive mechanism positioned to contribute valuable additional review of workpapers prior to formal submission for Commission staff review. However, Commission staff notes that the utilities' submissions to the CalTF are not adequately considering previous staff comments and direction on the measures and activities included in those workpapers.

Custom Projects:

With custom project activities, Commission staff continued to be disappointed in PG&E's handling of many custom projects selected for review. For example, in a major university campus project, PG&E was not forthcoming with critical information and background on the project and continued to apply out-of-date policies on self-generation when the issues had been highlighted by staff on numerous occasions. It was only when Commission staff management intervened that PG&E finally provided the requested information. In another example, PG&E

and its implementer both accepted a custom project that should have been deemed (steam traps and pipe and tank insulation), even though the implementer's website clearly designated these measures as deemed to be paid a deemed rebate. Staff also notes that PG&E completed steam trap projects without including these projects on the CMPA list in advance, as required by Commission decision.

Although PG&E has taken steps to implement review processes, the continued substandardreview conduct from PG&E leads Commission staff to doubt that PG&E is committed to consistently applying the expected and directed due diligence and robust quality controls to their review processes. This view is exemplified by one PG&E manager complaining in a statewide meeting that "Commission staff guidance requires PG&E to spend more time looking for ways to deny projects than finding more projects." Additionally, during 2014, PG&E's then regulatory staff often argued with Commission staff about what it feels is wrong with Commission decisions/policies rather than bringing substantive information to address the questions at hand. Staff encourages robust discussion on technical issues and areas where policy direction is vague, but does not consider the review process the venue in which desired changes to existing policy can or should be pursued.

Staff reviews continue to point out to PG&E staff that much more progress is needed to improve due diligence and incorporate program changes to improve net results (reduce free ridership). Staff continues to see insufficient progress in this area. Per Commission decision, "[w]e expect the utilities to respond to Commission Staff reviews, not just by accepting altered ex ante values, but by taking steps to change program activities to improve the Net-to-Gross results. We do not expect the utilities to curtail custom measure and project activities due to low gross savings or Net-to-Gross results. They should respond to any such poor results with programmatic changes designed to improve performance."¹ Staff will watch for such expected and directed program rule and design changes in the coming year as the data for 2015 ESPI scoring is compiled.

Overall, Commission staff finds PG&E's custom projects ex ante activities to be disappointing. As can be seen in the tables within Attachment D, more than 82% of all custom project reviews in 2014 had issues with all initial (first) reviews of new projects having one or more issues and 61% of those initial dispositions on new project having significant issues. Staff is seriously concerned about PG&E's intention to reliably collaborate with Commission staff in implementing the Commission's ex ante review policies including robust due diligence and appropriate program design changes to improve portfolio performance. PG&E management should take steps to ensure that the entire utility energy efficiency staff, not just the engineering review activity staff, understands these expectations and takes action to improve custom project performance.

In accordance with D.13-09-023, the IOUs' ex ante activities are assessed against a set of 10 metrics on a rating scale of 1 to 5. On this scale, 1 is a low score and 5 is a high score. A maximum score will yield 100 points. The 1-5 rating scale is distinguished as follows:

1. Consistent underperformer in meeting the basic Commission expectations;

¹ D.12-05-012 at 61

- 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.

Metric	Total Possible	Workpaper	Custom	Total Points
1 a	5	1.5	1.5	3
1b	5	1.5	1	2.5
2	10	3	3	6
3	10	3	3	6
4	10	3	2	5
5	10	2	3	5
6a	5	1.5	1	2.5
6b	5	1.5	1	2.5
7	10	2.5	3	5.5
8	10	3	1	4
9	10	3	3	6
10	10	3	2	5
Total	100	28.5	24.5	53

PG&E's final ESPI ex ante review points for 2014 are as follows:

It should be noted that in the preparation of the final 2014 ESPI ex ante review scores, Commission staff did not have all desired data available. For instance, Commission staff did not conduct a comprehensive claims review for these scores. For custom projects, Commission staff reviewed the 2014 activities and issued dispositions issued. Commission staff based the scoring on the data available and did not speculate on how any particular disposition review would impact the final scores.

The intention of the ESPI ex ante review component is to motivate utilities to employ a superior level of due diligence to their activities and thus reduce the need for the extensive level of oversight currently undertaken by Commission staff and consultants. The due diligence expectations include complying with the Commission's ex ante review policies and procedures in a manner that results in the development and reporting of reliable, defensible, and accurate ex ante estimates. Commission staff finds that all of the utilities still tend to rely on Commission staff input and analysis before finalizing ex ante estimates. While collaboration and information-sharing is always encouraged, Commission staff envisions that, through the feedback provided in this ESPI component and ongoing collaboration, the utilities' internal ex ante review policies and resources

towards collaboration and less time to correcting or re-analyzing ex ante values on behalf of the utilities.

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

		Workpapers					Custom			
<u> </u>	Metric Timeliness of action in the implementation of	Max Points	Score	Percent Score	Total Points	Max Points	Score	Percent Score	Total Points	
14	ordered ex ante requirements (e.g., A.08-07-021, D.11-07-030, D.12-05-015, etc.) in the pre- submittal/ implementation phase: Timing of disclosure in relation to reporting	2.5	3	60%	1.5	2.5	3	60%	1.5	3
1b	Timeliness of action in the implementation of ordered ex ante requirements (e.g., A.08-07-021, D.11-07-030, D.12-05-015, etc.) in the post- submittal/ implementation phase: Timing of responses to requests for additional information	2.5	3	60%	1.5	2.5	2	40%	1	2.5
2	Breadth of response of activities that show an intention to operationalize and streamline the ex ante review process	5	3	60%	3	5	3	60%	3	6
3	Comprehensiveness of submittals (i.e., submittals show that good information exchange and coordination of activities exists, and is maintained, between internal program implementation, engineering, and regulatory staff to ensure common understanding and execution of ex ante processes)	5	3	60%	3	5	3	60%	3	6
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	5	3	60%	3	5	2	40%	2	5
5	Quality and appropriateness of project documentation (e.g., shows incorporation of Commission policy directives)	5	2	40%	2	5	3	60%	3	5

Attachment A: Final ESPI Ex Ante Review Scores

	Total	50			28.5	50			24.5	53
10	Ongoing effort to incorporate cumulative experience from past activities (including prior Commission staff reviews and recommendations) into current and future work products	5	3	60%	3	5	2	40%	2	5
9	Professional care and expertise in the use and application of adopted DEER values and DEER methods	5	3	60%	3	5	3	60%	3	6
8	Thoughtful consideration, and incorporation, of CPUC comments/inputs. In lieu of incorporation of comments/input, feedback on why comments/input were not incorporated	5	3	60%	3	5	1	20%	1	4
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	5	2.5	50%	2.5	2	3	60%	3	5.5
бb	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	2.5	3	60%	1.5	2.5	2	40%	1	2.5
ба	Depth of IOU quality control and technical review of ex ante submittals: Third party oversight	2.5	3	60%	1.5	2.5	2	40%	1	2.5

2014 Efficiency Savings and Performance Incentive Ex Ante Performance – Workpaper Scores –

Pacific Gas and Electric

Metric	Description	Workpaper Benchmark	2014 Midyear Score	Final 2014 Score	CPUC Staff Assessment
1a	Timeliness of action in the implementation of ordered ex ante requirements (e.g., A.08- 07-021, D.11-07-030, D.12-05- 015, etc.) in the pre-submittal/ implementation phase: Timing of disclosure in relation to reporting	 Fraction of deemed measures for which workpapers have been submitted to Commission prior to measure being offered in the portfolio; Fraction of workpapers disclosed prior to or during work commencement and submitted upon completion rather than withheld and submitted in large quantity; Fraction of workpaper development projects for new technologies submitted for collaboration versus total number of workpapers for new technologies submitted 	Good	3	Commission staff is not aware of any deemed measures where workpapers have not been submitted. Commission has observed that some workpapers have been retired and the measures covered by those workpapers moved to custom programs, even though the savings reported for those claims appear to not vary significantly across claims. This indicates that those measures may still have deemed savings values and not site-specific savings values. For example, PG&E submitted workpapers for nonresidential audits, but the claims appear to be reported as custom. Commission staff is also concerned with the growing number of lighting measures that are moving to custom. It is unlikely that adequate M&V has been performed on this large number of claims. D.12-05-015 requires the use of DEER methods for lighting measures (specifically DEER building types) and provides for the development of additional building types based on adequate data.

Metric	Description	Workpaper Benchmark	2014 Midyear Score	Final 2014 Score	CPUC Staff Assessment
					code update. About 90% of all workpapers were submitted in a single group. Commission staff believes this large submittal was unavoidable due to the requirements of the DEER code update. Additionally, 2014 represented an important transitional year to the ex ante database as the method of submitting workpaper ex ante values for commission staff review. PG&E submitted ex ante values for pre-code and post- code in June and November. This effort is an improvement over 2013. PG&E has increased its efforts to involve Commission staff in significant revisions to, or development of new workpapers. However, Commission staff is concerned that some workpapers are being submitted for review to the California Technical Forum (CalTF) that do not include consideration, analysis or revisions based on previous Commission staff review.
1b	Timeliness of action in the implementation of ordered ex ante requirements (e.g., A.08- 07-021, D.11-07-030, D.12-05- 015, etc.) in the post-submittal/ implementation phase: Timing of responses to requests for additional information	Percentage of workpaper reviews which experience significant delay[3] due to slow response to requests for readily available (or commonly requested)[4] additional information (higher percentage = lower score)	Fair	3	All IOUs and Commission Staff spent a large amount of time in 2014 toward finalizing the disposition of lighting workpapers submitted in 2013. Additionally, 2014 represented an important transitional year to the ex ante database as the method of submitting workpaper ex ante values for commission staff review. PG&E submitted ex ante values for pre-code and post-code in June and November. This effort is an improvement over 2013. PG&E has begun the transition to submit workpapers with data in a format that follows the ex

Metric	Description	Workpaper Benchmark	2014 Midyear Score	Final 2014 Score	CPUC Staff Assessment
					ante database (EADB) specification. While most submissions still need substantial changes to match the EADB format, there has been progress in this area.
2	Breadth of response of activities that show an intention to operationalize and streamline the ex ante review process	Percentage of workpapers that address all aspects of the Uniform Workpaper Template (as described in A.08-07-021, or any superseding Commission directive)	Fair	3	Staff has yet to develop a uniform workpaper template. At the February 26 collaboration meeting with Commission and PA staff and consultants, Commission staff made a presentation outlining objectives for developing workpaper content guidelines. Commission staff intends for these guidelines to serve as the workpaper template. One of the primary components of these guidelines is the requirement for submitting ex ante data in the EADB format. Since staff provided the preliminary assessment, PG&E has made som submittals of ex ante data with workpapers that show some progress toward implementing the EADB format and should be acknowledged for their efforts. However, submittals are not at a level yet where the ex ante review process can be streamlined, and significant interaction with Commission staff and consultants is still necessary.
3	Comprehensiveness of submittals (i.e., submittals show that good information exchange and coordination of activities exists, and is maintained, between internal program implementation, engineering, and regulatory staff to ensure common understanding and execution of ex ante processes)	 Percentage of workpapers that include appropriate program implementation background as well as analysis of how implementation approach influences development of ex ante values; Percentage of workpapers which, on initial submission, 	Good	3	Commission staff maintains concerns about ex ante implementations and values that assume pre-existing baselines in ROB deemed measures as well as the use of hard-to-reach (HTR) or emerging technology (ET) Net-to- Gross (NTG) values. For NTG, workpapers typically list the available NTG values from DEER that may apply to the measures

Metric	Description	Workpaper Benchmark	2014 Midyear Score	Final 2014 Score	CPUC Staff Assessment
		were found to include all applicable supporting materials or an adequate description of assumptions or calculation methods			covered by the workpaper, but do not discuss the circumstances under which a particular NTG may be claimed. There are specific categories of customers for which HTR NTG values may be claimed. ET values may only be used where specific ET projects have directly contributed to the development of measures and programs for the ET measures. The review and discussion of the specific ET efforts needs to be included in the workpapers. A simple listing of the specific reports or projects is not sufficient. Commission staff has concerns over Replace-on-Burnout (ROB) measures that use pre-existing baselines. Commission staff addressed many lighting measures of this type with the comprehensive lighting disposition where several workpapers included measures with these pre-existing baseline assumptions. PG&E has corrected these issues (a positive step as noted in metric 8, below) in the lighting workpapers, but Commission staff is concerned that there may be other workpapers with similar issues. Commission staff acknowledges that it would be difficult to apply this concern to the overall score for this metric. Nevertheless it is important to highlight this concern. Commission staff is concerned that direction from D.11- 07-30 covering commercial cooking equipment has not been addressed. See metric 6(a) for more information.

Metric	Description	Workpaper Benchmark	2014 Midyear Score	Final 2014 Score	CPUC Staff Assessment
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	Percentage of high profile program, or high impact measure, workpapers submitted for collaboration or flagged for review	Good	3	Commission staff is concerned with the growing number of measures being transitioned from deemed (which would require workpapers) to custom programs (as discussed in Metric 1a, above. There are specific PG&E projects, such as retail evaporative cooling, and projects being developed jointly with other IOUs such as variable refrigerant flow (VRF) HVAC systems, LED tubes, and updates to the HVAC quality maintenance (QM) workpapers. Commission staff understands that SCE is the primary developer of the HVAC QM workpaper, and that the HVAC QM workpaper will be utilized by all PAs. Commission staff urges IOUs to monitor the workpaper efforts of other IOUs if they plan to use those workpapers in their own programs. Reviews of those workpapers will affect the ESPI scores of any IOUs using them. For this metric, Commission staff has assumed that PG&E is the lead IOU for RPP and VRF workpaper development efforts and therefore has given them greater consideration in the PG&E's score than other IOUs.
					commission staff is also concerned that some workpapers are stagnating and not being updated to reflect standard practice. Important examples that represent high fractions of savings claims are exterior LED fixtures and high-bay LED fixtures and high-bay T5 fixtures. The presence of low-cost loans from the CEC for exterior LED lighting and aggressive controls requirements in Title 24 may be causing a shift in

Metric	Description	Workpaper Benchmark	2014 Midyear Score	Final 2014 Score	CPUC Staff Assessment standard practice that is currently being ignored in the
					workpapers. Commission staff expects PAs to be proactive in identifying these shifts and updating their workpapers accordingly.
5	Quality and appropriateness of project documentation (e.g., shows incorporation of Commission policy directives)	Frequency of inappropriate or inferior quality at the time of initial Commission staff review (higher frequency = lower score)	Fair	2	A review of the 2014 claims data and associated workpapers show that the issues raised in the 2013 ESPI process regarding NTG values and early retirement measures have not been resolved. The 2014 claims originating from at least 40 PG&E workpapers incorrectly claim HTR NTG or ET NTG. A review of the associated workpapers shows that insufficient information is provided regarding the program implementation to justify the use of these ex ante values. PAs need to provide explicit justifications in workpapers for use of HTR NTG. The use of the ET NTG must be approved in advance and include an explanation of how emerging technology programs have directly influenced the development and implementation of measures.
6a	Depth of IOU quality control and technical review of ex ante submittals: Third party oversight	Quality of workpapers prepared by consultants, third parties, and local government partners submitted by IOUs	Fair	3	There was limited review of work prepared by third parties in 2014. There are several high profile workpaper projects currently under way. Most of these are joint efforts across several IOUs and include the following: LED tube replacements, the retail plug load portfolio project (RPP), HVAC variable refrigerant flow (VRF), Energy Star set-top boxes, and LED menu boards.

Metric	Description	Workpaper Benchmark	2014 Midyear Score	Final 2014 Score	CPUC Staff Assessment
					 These workpapers are being developed in part through the use of consultants. Based on previous meetings and a review of available materials, Commission staff highlights several concerns: Retail Plug Load Portfolio: The 2010 disposition for EnergyStar TVs required the examination of wholesale product costs as part of the analysis to determine likely wholesale purchasing behavior. This was not included in the RPP pilot evaluation. Variable Refrigerant Flow: Early Commission staff input on VRF workpapers required the investigation of likely alternatives given the program assumption (which is ROB/NC/NT) and the justification for a particular technology shift over others or simply a dramatic efficiency increase of the conventional technology. Here it is important to note that few if any other HVAC measures provide incentives for a shift in technology. Rather they only provide incentives for an increase in efficiency over the ISP/code baseline of the same technology. Set-Top Boxes: Early Commission staff input on settop boxes questions the presumption that a direct incentive to manufacturers or cable companies is the only effective method. Replacement LED Tubes: Workpaper developers acknowledge that LED tubes lend themselves to specific applications and are undesirable in others,
					but early implementation details provide little

Metric	Description	Workpaper Benchmark	2014 Midyear Score	Final 2014 Score	CPUC Staff Assessment
					 information about how the best applications will be targeted in a mass market program. Commercial Cooking: A brief review of commercial cooking workpapers prepared by the consultant Fischer Nickel and PG&E's Food Service Technology Center revealed that direction from D.11-07-030 for a reduction on overall savings was removed from the savings values in subsequent workpaper revisions. D.11-07-030 directed that additional research be performed to justify the original baseline assumptions. It does not appear that this research was incorporated into workpaper revisions. In fact, savings have increased for these measures over the unadjusted values originally proposed for the 2010-2012 cycle.
					Many of the workpapers discussed above are being submitted to and reviewed by the CaITF. Commission staff sees the effort of IOUs and the CaITF for early involvement in collaboration on workpaper development and review as a potential source of improved workpaper content, but is concerned that IOU developed workpapers are being submitted to the CaITF for review without any significant revisions pursuant to the previously issued Commission staff review or direction. Additionally, the CaITF is undertaking its own workpaper
					direction.

Metric	Description	Workpaper Benchmark	2014 Midyear Score	Final 2014 Score	CPUC Staff Assessment
					recycling workpaper. No CalTF developed or "approved"
					workpapers have been formally submitted for
					Commission staff review to date, therefore Commission
					staff has not given them weight in their scoring.
					However, input is provided now so that PG&E may make
					any consider and incorporate revisions based on
					previous Commission staff input and direction in the
					event PG&E chooses to submit any of these workpapers
					for approval.
					Additionally, the CaITF is accepting workpaper
					submissions from non-IOU entities, such as a clothes
					washer recycling workpaper, for example. Commission
					staff provided input for the clothes washer recycling
					workpaper abstract. The workpaper author has included
					this input in the first draft of the workpaper available on
					the CalTF website. Meeting notes indicate that the CalTF
					intends to investigate Commission staff concerns about
					how the recycling effort will impact the secondary
					market for clothes washers, but the notes don't indicate
					how they will address other Commission staff concerns.
					It appears the the CaITF has approved this workpaper
					for one year pending investigation of only one of many
					Commission staff concerns. If non-IOU developed
					workpapers are intended to become IOU submissions
					for Commission staff review, PG&E is expected to ensure
					those workpapers meet CPUC policy and previously
					issued guidance and address all Commission staff
					concerns.

Metric	Description	Workpaper Benchmark	2014 Midyear Score	Final 2014 Score	CPUC Staff Assessment
6b	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	 (1) Percentage of workpapers which required changes to parameters of more than 10% or required substantial changes to more than two parameters among UES, EUL/RUL, NTG, impact shape, or costs; (2) Percentage change from IOU- proposed values to ED- approved values (higher percentage = lower score) 	TBD	3	Commission staff performed a review of the 2013 claims as part of the review of IOU advice letters for covering the deemed ESPI incentive payments. Commission staff also performed a similar review of the first three quarters of claims for 2014. In both cases, Commission staff discovered a significant number of claims for high NTG values (HTR and ET) which we believe should have been assigned the lower default values. As the workpapers likely include implementations for both HTR and default NTG values, it is difficult to assign corrections for HTR values to this metric. The final application of the correct NTG depends on specifics of the actual installation. On the other hand, ET NTGs would have likely been revised to the lower values. Commission staff has a general concern about the use of cost data that was included in DEER2008, but removed from DEER2011. IOUs continue to reintroduce this cost data through workpapers with little, if any, due diligence to determine if that data is still reasonable. Commission staff acknowledges the difficulty in assigning a score here since, in 2014, cost and NTG values were not explicitly reviewed. However, the general concerns lead the staff to keep the score for this metric the same as 2013.
7	Use of recent and relevant data sources that reflect current knowledge on a topic for	Percentage of workpapers with analysis of existing data and projects that are applicable to	Fair	2.5	The investigation of industry standard practices and the use of timely and relevant data will be a focus of

Metric	Description	Workpaper Benchmark	2014 Midyear Score	Final 2014 Score	CPUC Staff Assessment
	industry standard practice studies and parameter development that reflects professional care, expertise, and experience	technologies covered by workpaper			workpaper review moving forward. D.12-05-015 (at 350) emphasizes the need to determine both the ISP and code baselines and consider using ISP where it represents a more efficient baseline than code. Lighting retrofits, package HVAC replacements and new appliance purchases are all areas where results of EM&V efforts indicate that ISP exceeds code, yet all workpapers examined assume minimally code compliant baselines. During the 2013 ESPI review, Commission staff expressed a concern with the practice of using workpapers to reintroduce measures and values from an earlier version of DEER that had been removed with the adoption of DEER 2011. Commission staff is concerned about the continued use of DEER2008 costs. These were removed from DEER2011. Commission staff does not want to prohibit the use of DEER2008 costs, however, PAs should perform due diligence and investigation to determine if those costs are still reasonable, seven years after their publication.
8	Thoughtful consideration, and incorporation, of CPUC comments/inputs. In lieu of incorporation of comments/input, feedback on why comments/input were not incorporated	Frequency of revisions to workpapers in response to (and/or appropriate and well- defended rejection of) CPUC reviewer's recommendations	TBD	3	Commission staff sees room for improvement in this area. Workpapers that incorporate early retirement savings values over pre-existing baselines, but still claimed as ROB, do not address previous staff guidance in some cases. On the positive side, PG&E revised lighting workpapers to address corrections included in the comprehensive lighting disposition. However, Commission staff was

Metric	Description	Workpaper Benchmark	2014 Midyear Score	Final 2014 Score	CPUC Staff Assessment
					disappointed with the protracted discussions associated with resolving the lighting disposition.
					Direction from D.11-07-030 covering commercial cooking workpapers appears to have been ignored or not addressed in recent revisions when compared to final workpapers submitted for the 2010-2012 cycle.
9	Professional care and expertise in the use and application of adopted DEER values and DEER methods	Percentage of workpapers, including those covering new or modified existing measures, that appropriately incorporate DEER assumptions and methods	TBD	3	PG&E identified and updated all workpapers where savings needed updates due to the 2014 DEER code update. Commission staff generally perceives PG&E's efforts in this area as about the same as 2013 and therefore maintains the 2013 score. PG&E has increased its efforts to provide ex ante data in the correct format, which includes references to DEER data instead of resubmitting DEER data. However, PG&E is still resubmitting DEER data and impacts with both workpapers and ex ante data. As PG&E improves its own processes for preparing workpapers and associated ex ante data, Commission staff expects that PG&E will drop the practice of resubmitting DEER data.
10	Ongoing effort to incorporate cumulative experience from past activities (including prior Commission staff reviews and recommendations) into current and future work products	Percentage of workpapers including analysis of previous activities, reviews and direction	Fair	3	PG&E identified and updated all workpapers that referenced weather sensitive DEER measures. DEER2014 incorporated recent Title 24 weather file updates. With regard to specific on-going development efforts, one area where it appears that incorporation of previous reviews could be improved is in the area of

Metric	Description	Workpaper Benchmark	2014 Midyear Score	Final 2014 Score	CPUC Staff Assessment
					lighting technology costs. Commission staff reviews including D.11-07-030 for linear fluorescent technologies and the 2012 disposition covering screw-in and MR-16 LED lamps discuss lighting costs. Commission staff is aware of IOU research that is nearing completion on LEDs, which may address cost concerns for those technologies.
					Commission staff has some concerns related to workpapers currently under development, particularly those being developed by consultants or under the auspices of the CaITF. Refer to the discussion under metric 6(a) for more information.

2014 Efficiency Savings and Performance Incentive Ex Ante Performance – Custom Project Scores –

Pacific Gas and Electric

Metric	Description	Custom Benchmark	2014 Midyear Score	Final 2014 Score	CPUC Staff Assessment
1a	Timeliness of action in the implementation of ordered ex ante requirements (e.g., A.08- 07-021, D.11-07-030, D.12-05- 015, etc.) in the pre-submittal/ implementation phase: Timing of disclosure in relation to reporting	 (1) Percentage of projects in quarterly or annual claims that were reported in the CMPA twice-monthly list submissions; (2) Percentage of projects for which there is a two weeks or less difference between the application date and the date reported in the CMPA; (3) Percentage of tools used for calculations disclosed prior to use 	Good	3	Commission staff did not complete a comprehensive claims review. This is in part due to the extensive effort required to translate the IOUs' claims into a reviewable format. Commission review staff and the IOUs need to work out a better process and content for custom claims to facilitate this review in the future. PG&E appears to be disclosing its custom projects in the CMPA submission. Also, PG&E did inform staff that it neglected to post several steam trap projects on the CMPA list for project review selection.
1b	Timeliness of action in the implementation of ordered ex ante requirements (e.g., A.08- 07-021, D.11 07-030, D.12 05- 015, etc.) in the post-submittal/ implementation phase: Timing of responses to requests for additional information	Percentage of projects which experience significant delay due to slow response to requests for readily available (or commonly requested) additional information (higher percentage = lower score)	Fair	2	PG&E's response to ex ante review directives in general are slow. There were inordinate delays in making full disclosures in response to Commission staff's data request. There were 13 projects that required additional information after receiving the initial project review package. Six of these projects required three or more requests for additional information.
2	Breadth of response of activities that show an intention to operationalize and streamline the ex ante review process	 (1) Percentage of custom project submissions that show standardization of custom calculation methods and tools; (2) Development and/or update of comprehensive internal (to IOUs, third parties, and local government partners, as 	Fair	3	PG&E largely uses standardized methods and tools. PG&E posted four tools in the CTA for Commissions staff to review. There were three projects identified with tool issues.

Metric	Description	Custom Benchmark	2014 Midyear Score	Final 2014 Score	CPUC Staff Assessment
3	Comprehensiveness of submittals (i.e., submittals show that good information exchange and coordination of activities exists, and is maintained, between internal program implementation, engineering, and regulatory staff to ensure common understanding and execution of ex ante processes)	appropriate) process manuals/checklists and QC Number of repeated formal requests for additional documentation for project information and/or reporting claims that support ex ante review activities (fewer requests = higher score).	Average	3	Same as 1b except that this metric refers to data requests at the interim and final stages of a project reviews. As mentioned in 1b above, there were six projects that required three or more requests for additional information. PG&E needs to strive for providing complete review packages to CPUC staff for review, just as the IOU's internal reviewers receive a full package for project review.
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	Percentage of large high impact projects or measures referred to CPUC early or flagged for review	Fair	2	PG&E did not post any early opinion reviews for Commission staff on the CMPA in 2014. Staff recalled a couple of occasions where PG&E asked quick questions informally. However, judging from the number of projects that identified baseline (13) and eligibility (eight projects) issues in staff's initial reviews, and the fact the staff only samples a small fraction of custom projects, it appears that more projects should have been referred for staff opinion.
5	Quality and appropriateness of project documentation (e.g., shows incorporation of Commission policy directives)	Frequency of inappropriate or inferior quality documentation on project eligibility, baseline determination, program influence, use of custom elements in projects, assumptions and data supporting savings, and project costs (higher frequency = lower score)	Poor	3	PG&E's documentation of early retirement, costs, and baseline continues to be an issue.

Metric	Description	Custom Benchmark	2014 Midyear Score	Final 2014 Score	CPUC Staff Assessment
6a	Depth of IOU quality control and technical review of ex ante submittals: Third party oversight	Quality of custom project estimates prepared by customers, third parties, and local government partners submitted by IOUs	Poor	2	The quality of documentation from PG&E's third parties and customers could still use improvement as there were two projects with eligibility issues, and five projects with baseline issues. The core projects were about the same, with three having eligibility issues and four having baseline issues.
6b	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	 (1) Percentage of Projects requiring three reviews or re- requests for supporting information commonly requested; (2) Percentage of projects for which IOU- proposed savings and ED- approved savings differ by 20% or more (higher percentage = lower score) 	Poor	2	In 2014, six projects that required 3 or more reviews requesting additional information. The change in the PG&E-proposed values and staff reviewed values primarily occurs at the final stage of review when PG&E has completed its post-installation inspection or M&V and finalized savings. Additionally, the initially proposed project may also be modified because of eligibility and baseline issues that may rule out the project or some of the measures. There were nine projects that required adjustments, most with significant issues such as did not follow CPUC Staff guidance, inadequate PA calculations, ineligible measures not removed issues, and missing M&V true- ups.
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	Percentage of custom projects that use data sources and methods per standard research and evaluation practices	Below average	3	The need to use standard research and evaluation practices in custom projects arises mainly for ISP studies and the use of default values that draw from secondary data. PG&E conducted three ISP studies in 2014, completing two with one still on-going. PG&E's ISP study activities appear to slowed to a halt after the PG&E staff left the utility. From projects with baseline issues, it appears that PG&E is still not providing adequate support for ISP baseline.
8	Thoughtful consideration, and incorporation, of CPUC	(1) Frequency of improved engineering/M&V methods and	Below average	1	PG&E continues to argue with Commission staff on Commission policies that it does not agree with rather

Metric	Description	Custom Benchmark	2014 Midyear Score	Final 2014 Score	CPUC Staff Assessment
	comments/inputs. In lieu of incorporation of comments/input, feedback on why comments/input were not incorporated	processes resulting from (and/or appropriate and well- defended rejection of) CPUC reviewer's recommendations; (2) Percent of projects in custom reviews that reflect guidance provided in prior reviews			than bringing substantive information to the table for discussions. This results in long delays. PG&E needs signifcant improvement in this area.
9	Professional care and expertise in the use and application of adopted DEER values and DEER methods	Percentage of custom projects including, and not limited to, new or modified existing technologies or project types that appropriately incorporate DEER assumptions and methods	Fair	3	The percentage of custom projects that appropriately incorporate DEER assumptions and methods could be identified more thoroughly from a review of claims and sampled projects. Staff has not undertaken a claims review yet. PG&E, however, appears to have problems with using incorrect measure EUL values.
10	Ongoing effort to incorporate cumulative experience from past activities (including prior Commission staff reviews and recommendations) into current and future work products	Percentage of projects identified in claims review that were implemented per CPUC directions in previous reviews	Below Average	2	A comprehensive claims review has not been undertaken for 2014. Commission review staff and the IOUs need to work out a better process and content for custom claims to facilitate this review in the future. The score for this metric reflects our overall view that the PG&E is not making an effort to meet expectations. Improvement is definitely needed as noted in earlier metrics.

2014 Efficiency Savings and Performance Incentive Ex Ante Performance – Custom Project Dispositions – Pacific Gas and Electric

The tables on the following pages provide a summary of dispositions issued during the custom review process in 2014 and 2013. Dispositions were issued at several phases of projects activities: phase 1 is a disposition after the initial project documentation submission and before a customer agreement is in place; phase 2 is normally after a customer agreement is in place and before the project is installed; phase 3 and later is often after the project is installed and prior to the final savings estimates being "frozen". The tables are presented in pairs with the left side of the page being a summary of dispositions issued in 2014 and the right side of the page being a summary of the dispositions issued in 2013. In this way the ratings of the content of dispositions issued in the two years may be compared. The first pair of tables cover dispositions issued for all phases; the second though fourth sets of tables cover dispositions issued for phase 1 through 3 respectively.

There are three levels of rating when a disposition covered an area:

- 1. Adequate No issues
- 2. Inadequate Minor issues
- 3. Inadequate Significant issues

There are twelve areas of rating (plus the weighted average rating – weighted by the number of dispositions issued for each area):

- 1. Project Type Assignment an assessment of the IOU assignment of project type (New Construction, Replace-onburnout/Normal Replacement, Early Retirement, Capacity Expansion, Add-on Retrofit)
- 2. Previously Requested Action an assessment if this IOU submission appropriately follows or complies with the previously issued guidance or disposition requirements
- 3. Measure Description an assessment of the accuracy and quality of the IOU description of the project and/or the measures being installed
- 4. Eligibility by Policy or Rules an assessment of proper IOU assessment of application of CPUC policy and IOU program rules to the eligibility of the project and/or measure for EE incentives
- 5. Baseline Assessment an assessment of the IOU proposed baseline for savings estimates
- 6. Costs Assessment an assessment of IOU supplied project/measure costs and any related cost calculations or limitations on incentives
- 7. Measure Life Assessment an assessment of IOU proper selection or evaluation of EUL and/or RUL values
- 8. Calculation Methodology m- an assessment of the appropriateness of the proposed or utilized calculation methodology
- 9. Pre-Install Impacts Estimate an assessment of the appropriateness or accuracy of the pre-installation methods (the calculation assumptions or values used not the method used as that is in item above)
- 10. M&V Plan an assessment of the appropriateness and quality of the proposed M&V plan
- 11. Completed M&V an assessment of the quality and appropriateness of M&V executed (the actual work done exclusive of the plan covered under the item above)
- 12. Adjustment to Final Impacts an assessment of the level of adjustment needed to be made to the IOU proposed post-installation final savings estimates

Rating Area	Adequate - No issues	Inadequate - Minor issues	Inadequate - Significant issues	Number of relevant diposisions
Project Type Assignment	70%	0%	30%	33
Previously Requested Action	52%	18%	30%	33
Measure Description	89%	0%	11%	28
Eligibility by Policy or Rules	64%	6%	30%	33
Baseline Assessment	55%	11%	34%	38
Costs Assessment	51%	24%	24%	41
Measure Life Assessment	18%	35%	47%	34
Calculation Methodology	57%	14%	29%	35
Pre-Install Impacts Estimate	50%	20%	30%	44
M&V Plan	59%	13%	28%	32
Completed M&V	72%	4%	24%	25
Adjustment to Final Impacts	50%	10%	40%	20
Has rating in any Area	87%	48%	52%	60
Has a 2 or 3 rating in any area		82	2%	60

PG&E - Percent at each rating type of issues identified based on 25 dispositions issued in 2014 at phase(s): 1

Rating Area	Adequate - No issues	Inadequate - Minor issues	Inadequate - Significant issues	Number of relevant diposisions
Project Type Assignment	50%	0%	50%	18
Previously Requested Action	0%	0%	0%	0
Measure Description	90%	0%	10%	20
Eligibility by Policy or Rules	67%	6%	28%	18
Baseline Assessment	45%	10%	45%	20
Costs Assessment	50%	11%	39%	18
Measure Life Assessment	6%	35%	59%	17
Calculation Methodology	61%	17%	22%	18
Pre-Install Impacts Estimate	44%	33%	22%	18
M&V Plan	50%	21%	29%	14
Completed M&V	0%	0%	0%	0
Adjustment to Final Impacts	0%	100%	0%	1
Has rating in any Area	87%	52%	61%	23
Has a 2 or 3 rating in any area		10	0%	23

PG&E - Percent at each rating type of issues identified based on 45 dispositions issued in 2013 at phase(s): All

dispositions	issued in	2013 at	pnase(sj: A

dispositions issued	a in 2015	at phase	sj: All	
Rating Area	Adequate - No issues	Inadequate - Minor issues	Inadequate - Significant issues	Number of relevant diposisions
Project Type Assignment	79%	12%	9%	34
Previously Requested Action	54%	31%	15%	13
Measure Description	85%	9%	6%	34
Eligibility by Policy or Rules	72%	13%	16%	32
Baseline Assessment	57%	30%	14%	37
Costs Assessment	51%	28%	21%	39
Measure Life Assessment	8%	46%	46%	37
Calculation Methodology	64%	17%	19%	36
Pre-Install Impacts Estimate	26%	31%	43%	35
M&V Plan	33%	33%	33%	27
Completed M&V	67%	0%	33%	3
Adjustment to Final Impacts	50%	0%	50%	4
Has rating in any Area	98%	77%	84%	43
Has a 2 or 3 rating in any area		98	3%	43

PG&E - Percent at each rating type of issues identified based on 32 dispositions issued in 2013 at phase(s): 1

Rating Area	Adequate - No issues	Inadequate - Minor issues	Inadequate - Significant issues	Number of relevant diposisions
Project Type Assignment	84%	10%	6%	31
Previously Requested Action	100%	0%	0%	1
Measure Description	87%	6%	6%	31
Eligibility by Policy or Rules	72%	10%	17%	29
Baseline Assessment	53%	30%	17%	30
Costs Assessment	52%	31%	17%	29
Measure Life Assessment	8%	50%	42%	26
Calculation Methodology	64%	18%	18%	28
Pre-Install Impacts Estimate	15%	42%	42%	26
M&V Plan	35%	29%	35%	17
Completed M&V	0%	0%	0%	0
Adjustment to Final Impacts	0%	0%	100%	2
Has rating in any Area	100%	81%	81%	31
Has a 2 or 3 rating in any area		10	00%	31

PG&E - Percent at each rating dispositions issue				ed on 25
Rating Area	Adequate - No issues	Inadequate - Minor issues	Inadequate - Significant issues	Number of relevant diposisions
Project Type Assignment	90%	0%	10%	10
Previously Requested Action	58%	13%	29%	24
Measure Description	80%	0%	20%	5
Eligibility by Policy or Rules	67%	11%	22%	9
Baseline Assessment	79%	7%	14%	14
Costs Assessment	57%	29%	14%	14
Measure Life Assessment	29%	29%	43%	14
Calculation Methodology	50%	17%	33%	12
Pre-Install Impacts Estimate	55%	14%	32%	22
M&V Plan	73%	7%	20%	15
Completed M&V	78%	6%	17%	18
Adjustment to Final Impacts	58%	8%	33%	12
Has rating in any Area	88%	48%	40%	25
Has a 2 or 3 rating in any area		72	2%	25

PG&E - Percent at each rating type of issues identified based on 7 dispositions issued in 2014 at phase(s): 3

Rating Area	Adequate - No issues	Inadequate - Minor issues	Inadequate - Significant issues	Number of relevant diposisions
Project Type Assignment	100%	0%	0%	2
Previously Requested Action	17%	33%	50%	6
Measure Description	100%	0%	0%	1
Eligibility by Policy or Rules	33%	0%	67%	3
Baseline Assessment	0%	50%	50%	2
Costs Assessment	40%	40%	20%	5
Measure Life Assessment	50%	50%	0%	2
Calculation Methodology	33%	0%	67%	3
Pre-Install Impacts Estimate	50%	0%	50%	4
M&V Plan	33%	0%	67%	3
Completed M&V	40%	0%	60%	5
Adjustment to Final Impacts	33%	0%	67%	6
Has rating in any Area	86%	43%	71%	7
Has a 2 or 3 rating in any area		71	1%	7

PG&E - Percent at each rating type of issues identified based on 11 dispositions issued in 2013 at phase(s): 2

dispo	sitions	issued	in 2013	at pl	nase(S

dispositions issue	d in 2013	at phase	(s): 2	
Rating Area	Adequate - No issues	Inadequate - Minor issues	Inadequate - Significant issues	Number of relevant diposisions
Project Type Assignment	50%	50%	0%	2
Previously Requested Action	50%	30%	20%	10
Measure Description	50%	50%	0%	2
Eligibility by Policy or Rules	67%	33%	0%	3
Baseline Assessment	71%	29%	0%	7
Costs Assessment	56%	22%	22%	9
Measure Life Assessment	11%	44%	44%	9
Calculation Methodology	57%	14%	29%	7
Pre-Install Impacts Estimate	56%	0%	44%	9
M&V Plan	13%	50%	38%	8
Completed M&V	67%	0%	33%	3
Adjustment to Final Impacts	100%	0%	0%	2
Has rating in any Area	90%	70%	90%	10
Has a 2 or 3 rating in any area		90)%	10

PG&E - Percent at each rating type of issues identified based on 2 dispositions issued in 2013 at phase(s): 3

Rating Area	Adequate - No issues	Inadequate - Minor issues	Inadequate - Significant issues	Number of relevant diposisions
Project Type Assignment	0%	0%	100%	1
Previously Requested Action	50%	50%	0%	2
Measure Description	100%	0%	0%	1
Eligibility by Policy or Rules	0%	0%	0%	0
Baseline Assessment	0%	0%	0%	0
Costs Assessment	0%		100%	1
Measure Life Assessment	0%	0%	100%	2
Calculation Methodology	100%	0%	0%	1
Pre-Install Impacts Estimate	0%	0%	0%	0
M&V Plan	100%	0%	0%	2
Completed M&V	0%	0%	0%	0
Adjustment to Final Impacts	0%	0%	0%	0
Has rating in any Area	100%	50%	100%	2
Has a 2 or 3 rating in any area		10	0%	2