

PUBLIC UTILITIES COMMISSION

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Date: July 15, 2015
To: Pacific Gas and Electric Company (PG&E)
From: CPUC Ex Ante Review Staff
Cc: R.12-01-005 and R.13-11-005 Service Lists
Subject: Mid-Year 2015 Efficiency Savings and Performance Incentive Ex Ante Review Performance Feedback

Pursuant to Decision (D).13-09-023, California Public Utilities Commission (CPUC) staff and consultants are providing mid-year feedback on the investor-owned utilities (IOUs) respective ex ante activities for 2015. Qualitative feedback is provided per each of the metrics identified in Attachment 7 of D.13-09-023. The mid-year feedback focuses on specific issues and concerns identified in dispositions issued so far during 2015 and in ongoing workpaper and custom project ex ante reviews. CPUC staff translated the identified review issues and concerns into qualitative feedback for the specified metric to give the IOUs a sense of how each can improve its respective activities.

Custom Projects

With regard to custom projects and measures, the Ex Ante Review dispositions touched nine projects thus far in 2015. The CPUC staff has identified several high-level issues of concern from these projects. A summary of these issues, taken from the review findings dispositions issued, as they relate to the particular projects is provided in Attachment B of this memo. Attachment B is intended to provide PG&E staff with information as to how the issues may potentially impact upward or downward scoring movement in the ESPI scoring metric. The qualitative feedbacks are designated as follow:

- ‘+’ indicates a positive scoring impact on a metric,
- ‘-’ indicates a negative scoring impact on a metric,
- ‘m’ indicates meeting expectation; no scoring impact on a metric,
- ‘n/a’ indicates the review feedback is not applicable to a metric.

Generally, the PG&E staff Ex Ante Review activities continue to be insufficient in the areas as identified below.

- **Timeliness of Fulfilling Documentation Requests.**
For two of the reviewed new construction projects, the substantial delays in documentation submittal and fulfillment of data requests are unacceptable. This is a

particular concern regarding the PG&E new construction projects where CPUC staff has already cautioned PG&E staff for not following the Ex Ante Review process in the past. In many instances, PG&E staff appears to be labeling projects as “application status” on the bi-weekly submittal list far in advance of appropriate and required documentation being available for CPUC Staff review.

- **Determination of Electrical Grid Impacts.**
In two of the reviewed projects, PG&E staff failed to recognize and document on-site generation and undertake an analysis to limit the claimable EE savings to the impacts upon the electrical grid per Commission policy.
- **Documentation of Calculation Methods and Assumptions.**
Often no documentation is provided that explains the calculation methodology, inputs, outputs, and assumptions. CPUC Staff have offered guidance in several previous dispositions describing requirements for concise, logical, step-by-step written calculation methodologies that must be included with project documentation for custom projects.
- **Calculation Tool Review**
PG&E staff has not uploaded any tools in 2015 for staff review as directed by the Commission in D.11-07-030. Providing tools and their documentation for CPUC staff review is an important step to ensuring projects that utilize those tools in the future will not be subject to delay or substantial adjustment in savings due to problems with the tool or its documentation.
- **M&V Plans and Analysis.**
Often PG&E staff submitted project M&V plans lack sufficient details to ensure accurate savings estimates. For one recently reviewed project, the submitted analysis of the post-installation M&V data was inadequate, did not provide an M&V report, failed to identify critical trends evident in the M&V data that challenge the basic assumptions of the savings calculation methodology, and did not employ the statistical analysis requested in a prior disposition for the same project.

PG&E staff submissions continue to provide inadequate M&V plans for some projects despite several dispositions having been previously issued by CPUC Staff describing minimum requirements for M&V plans. CPUC staff has observed that some PG&E reviewers are aware of these requirements and incorporating them into their reviews whereas others do not seem to be aware of this guidance. Recent review of IRCx-080 (a third party compressed air project) indicates that little previous guidance from CPUC staff regarding M&V plans is being incorporated by either the implementer or the PG&E reviewer. The M&V plans are critical components of providing reliable ex ante savings estimates. Lengthy review delays often occur when documentation is submitted with inadequate M&V plans.

- **Determination and Documentation of Measure Eligibility and Baselines.**

PG&E staff assessments of measure eligibility and baselines are often cursory, failing to identify issues related to mandated code requirements, industry standard practice, and interactions with other programs (i.e., “double dipping”). For example in one new construction project, the utility’s measure eligibility assessment failed to identify that the proposed VRF system received upstream incentives. CPUC Staff have also noted that some of the PG&E staff submitted documentation contains conflicting information on baselines, project types, and in some cases conflicting ex ante savings estimates. CPUC staff has difficulty identifying which value is the one actually being submitted for review when documents contain inconsistencies.

- **Adherence and Incorporation of Prior CPUC Staff Guidance.**
CPUC staff continues to find instances where previously issued and published EAR guidance was not followed without adequate justification. PG&E staff does not appear to be making sufficient efforts to incorporate past review findings into ongoing program activities. Project 1481-08 has not followed guidance issued by CPUC Staff for ISP studies. Project 1481-08 also has similar procedural errors to Project NC0127206 which has CPUC Staff very concerned as this raises concerns that some PG&E staff lacks a commitment to improve the performance of their activities and begin appropriately responding to multiple previously issued CPUC staff guidance and requirements documents. In Project 2K13182291, a Retro-commissioning Program project, PG&E did not follow CPUC staff review disposition guidance and circumvented its own program rules by bundling all the project measures costs together to pay a measure that has less than one year of simple payback.
- **Assessing, Documenting, and Addressing Freeridership.**
PG&E staff does not appear to be attempting to identify and limit possible freerider participation in their custom programs. CPUC Staff often finds little or no evidence in the submitted project documentation that PG&E staff has considered free ridership issues when reviewing measure and/or project eligibility. CPUC staff reviews often find little or no evidence of program influence and often it appears the project would have proceeded as submitted without any ratepayer support. This is particularly troubling in third party implementer projects where CPUC staff would expect third party contractor expertise to assist customers so as to enhance their otherwise planned projects rather than simply “harvesting” already planned projects unchanged into their programs. For example, documentation provided for project 1481-08, the major renovation of a paint shop, contains little evidence of program influence for a very large proposed incentive. CPUC staff expects PG&E staff to make significant progress in addressing this issue during 2015.
- **Demonstrating and Documenting Program Influence.**
As mentioned above, CPUC staff reviews often find little or no evidence of program influence. For new construction projects, PG&E staff is not providing documentation that

demonstrates the program influence required for participation by the statewide Savings-By-Design rules and guidelines.

PG&E staff must take steps to remedy these deficiencies moving forward.

Again, as indicated in the 2014 Final ESPI Scoring letter to PG&E staff, CPUC staff continues to be disappointed in PG&E staff's handling of the custom projects selected for review. A recent paint shop project raised numerous overarching concerns pertaining to PG&E staff's custom projects activity. This project's incentive agreement was signed eight months before PG&E staff uploaded documents for CPUC staff review. PG&E staff did not follow guidance for determining the industry standard practice for this project. There is little evidence of program influence. There are discrepancies in the documentation regarding the project type and ex ante savings. The project construction is likely well advanced, before any documents were uploaded for CPUC staff review. The 3rd party implementer appeared to have executed an incentive agreement before the PG&E staff completed its technical review, and one day after PG&E staff placed the project on the bi-weekly selection list for CPUC staff to review.

CPUC staff is concerned that PG&E program staff and 3rd party implementers continue to set up customer satisfaction issues by setting expectations with the customer for large incentive amounts before any appropriate review is undertaken, then these expectations are not realized when the ex ante review finds that the savings and incentive are overstated due to a lack of following program rules or non-compliance with previously issued Commission policies and directives. PG&E staff must take steps to remedy this issue and clarify with program staff and 3rd party implementers that incentive agreements are not to be signed until a project has gone through PG&E staff's internal project quality control review.

On a positive note, PG&E staff has started to identify and ask CPUC staff to provide early feedback on projects and measures through the Early Opinions process. However, PG&E staff must better identify areas of concern, their own review findings and interpretations for the project, and clearly state where the grey areas are for which CPUC staff clarification or recommendations are being requested.

Workpapers

With regard to the workpaper assessment for PG&E, the CPUC staff has performed preliminary reviews on six workpapers, detailed review of one workpaper, and has also reviewed PG&E's ex ante data submittals. The following general areas of concern are identified:

- **Ex Ante Database Submittals (needs improvement)**
PG&E continues to have problems with the ex ante data format, structure and content. Problems include using non-compliant data formats and entries, out-dated values from much older versions of DEER, and the renaming and resubmission of data that already exists in the DEER database.
- **Comprehensiveness of Submittals (needs improvement)**

On initial review, most workpapers lacked appropriate program information to support critical ex ante values such the use of the “Hard-to-reach” net-to-gross value. Sometimes technical information needed to support the savings calculations is missing. In some workpapers, the narrative describes delivery mechanisms that are inconsistent with the accompanying ex ante data.

- **Incorporation of Previous Direction (needs improvement)**

CPUC staff remains concerned that a large amount of previous guidance, staff direction, and Commission decision direction is still not being incorporated into the broader approach to workpaper development and deemed measure implementation. Workpaper reviews as well as collaboration meetings covering workpapers under development indicate that PG&E has yet to incorporate into its overall workpaper development efforts, direction from previous decisions including D.11-07-030 and D.12-11-015 as well as other guidance documents issued by CPUC staff. CPUC staff has also noted in the past that several workpaper development efforts, particularly for new lighting and package HVAC applications could greatly benefit from data collection from PG&E’s current customer base, but there is no indication in workpapers or through collaborative workpaper developments that PG&E has undertaken this work.

In accordance with D.13-09-023, CPUC staff and consultants will schedule a conference call meeting with PG&E to discuss the mid-year feedback. CPUC staff will send a Doodle Poll to find an available day and time. If you have any questions or comments in the meantime, please contact Peter Lai (Peter.lai@cpuc.ca.gov).

Attachment A: Mid-year ESPI Ex ante Review Metric and Metric Descriptions

Metric No.	Metric Description
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.
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.
2	Breadth of response of activities that show an intention to operationalize and streamline the ex ante review process.
3	Comprehensiveness of submittals.
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	Quality and appropriateness of project documentation (e.g., shows incorporation of Commission policy directives).
6a	Depth of IOU quality control and technical review of ex ante submittals: Third party oversight.
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.
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.
8	Thoughtful consideration, and incorporation, of CPUC comments/inputs. In lieu of incorporation of comments/input, feedback on why comments/input were not incorporated.
9	Professional care and expertise in the use and application of adopted DEER values and DEER methods.
10	Ongoing effort to incorporate cumulative experience from past activities (including prior Commission staff reviews and recommendations) into current and future work products.

2015 Ex Ante Review Interim ESPI Performance Feedback — PG&E

Custom Projects

Application ID	Measure Description	Discussion	Rating Feedback	Metric 1a	Metric 1b	Metric 2	Metric 3	Metric 4	Metric 5	Metric 6a	Metric 6b	Metric 7	Metric 8	Metric 9	Metric 10		
2K1221049C	Retrofit - Smart lighting initiative, Phase 2	Possible eligibility issue for incentive funding due to customer purchasing a significant amount of electrical energy not from the PA. PA needs to demonstrate the savings are being reflected on the electrical power purchased from the PA so customer is eligible for incentive funding. Issues with quality control and technical review is seeing in the CS identified and PA corrected logic error in the Lighting calculator being reintroduced in the latest version of the Lighting calculator. Certain disregard for the EAR process by inexplicably adding 38 new buildings to the existing application of 5 buildings as part of	Issues with eligibilities of ratepayer funding due to not all energy being purchased from the IOU. A recurring problem with the UC/CSU EE Partnership program.	n/a	n/a	n/a	n/a	n/a	-	n/a	n/a	n/a	n/a	n/a	-		
			Minor issues with the tool used by the PA to calculate demand savings. However, it highlights the need to have a better control of the assumptions and methodologies used in the PA energy saving calculation tools.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-	n/a	n/a	n/a	n/a	n/a	n/a
			Minor issue	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Attachment B: Custom and Workpaper Performance Feedback

		PA response to CS original 5-building application review.	with project type.												
			Issue with prior disposition requests. PA included 38 new buildings to an existing project of 5 buildings, when CS was expecting revised final savings for 5 buildings.	n/a	n/a	-	n/a	n/a	n/a	n/a	-	n/a	n/a	n/a	n/a
2K13218307	Evaporative Cooler retrofit for multiple retail sites	CS review found significant deficiencies in the savings assumptions and calculation methods, undocumented post-install M&V, no required maintenance contracts in place, uneven RTU loading evident in the M&V data and ignored in the savings, significant on-site generation, and inadequate RUL determination for 6 of the 8 sites. CS review did not approve the claimed savings and requested significant follow-ups. CS found that research results from other sites conducted by other	Provided "live" calculation workbooks for each site. However, there are significant issues with the calculation methods and assumptions. There was no documentation to explain the calculation methodology, inputs, outputs, and assumptions. The Phase I EAR disposition provides some descriptions of the originally submitted workbooks and	n/a	n/a	+	+	n/a	-	n/a	-	-	-	n/a	+

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		researchers were not taken into consideration. Phase I EAR disposition for X260 requested verification of the goodness of fit and other statistical checks on the linear regressions and CS did not find them in the submitted documentation for X260A.	requested modifications and documentation. Incorporation of site specific RTU/AHU schedules and control settings as CS requested in the Phase II EAR disposition for X260 was not carried down to the specific RTUs retrofitted.												
			Inadequate review and analysis of post-M&V data, no post-M&V report provided,	n/a	n/a	-	-	n/a	-	n/a	n/a	-	-	n/a	-
			Failure to report on-site generation and recognize potential impacts of self-generation on claimable EE impacts	-	-	-	-	n/a	-	n/a	-	-	-	n/a	-
			Followed prior disposition request to conduct post-M&V data collection and provide per	n/a	+	+	+	n/a	-	n/a	+	-	+	n/a	+

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			unit measure costs												
			Provided EUL and RUL analysis as requested in prior dispositions, but did not extend RUL analysis to all sites despite having adequate site evidence for each retrofitted RTU	-	+	+	-	n/a	+	n/a	-	-	+	n/a	+
1018-03	Lighting controls	Issue with having deemed measures as part of the Custom program measures. Use of both DEER hours and custom hours of operation to in the same project. Poor quality control with multiple miscalculated values in various cells of the spreadsheet calculation tool.	This is a Heavy Industry EE program project. Minor issue with measure eligibility. Incorporated deemed measure in custom measure calculations.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-
			Issues with calculation methodology. Use of both custom hours and DEER hours in the same project.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-	n/a

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			Issues with the calculation tool (spreadsheet). It highlights the need to have a better control of the assumptions and methodologies used in the PA energy saving calculation tools.	n/a	n/a	n/a	n/a	n/a	n/a	-	n/a	n/a	n/a	n/a	n/a	
NC0128969	Whole Building SBD	On 3/10/15 the Phase I EAR was posted questioning whether the VRF measure was taking upstream rebates, and rejecting the use of EnergyPRO for VRF. Request was also made for documentation of lighting measures. The PGE response of 4/7/15 defended the VRF measure and analysis, but also	Response to previous EAR was poor.	m	n/a	n/a	n/a	n/a	n/a	-	-	n/a	-	n/a	-	
			Project and measure eligibility were poor.	n/a	n/a	-	-	n/a	-	-	-	-	-	-	n/a	-
			Project and measure baselines were flawed.	n/a	n/a	-	n/a	n/a	-	-	-	-	-	-	n/a	-
			Calculation methodology was not acceptable.	n/a	n/a	n/a	n/a	n/a	-	-	-	-	-	-	n/a	-

Attachment B: Custom and Workpaper Performance Feedback

		acknowledged the upstream rebate. Regarding documentation of lighting measures the PGE response directs the CPUC to review design documents and Title 24 documents and reports that were never uploaded to the CPMA. On 5/12/15 a final EAR memo was posted rejecting the project.	PA appeared unable to understand the deficiencies and correct them after the Phase I EAR.	n/a	n/a	-	n/a	n/a	-	-	-	n/a	-	n/a	-
NC0128786	New VFD and Motor	Project measure is a new load addition. Prior irrigation method for the tomato fields was flood irrigation that	PG&E took one year to post a reply to CS questions and data request.	-	n/a	-	-	n/a	-	n/a	-	-	-	n/a	-

Attachment B: Custom and Workpaper Performance Feedback

		<p>required no electricity. Hence, there is no prior electricity meter for the pumping site and PG&E claims there was no fossil fuel engine used for pumping. A one year delay to reply to a straightforward project that appears to be a common, ongoing conversion measure to drip irrigation among many farmers in CA as a response to the drought. The PG&E reply is missing key elements. It did not provide the calculation workbooks for the project. CS reviewers do not recommend savings approval at this stage. The PG&E workbook tool was developed by PG&E's ATS group and has not been submitted to the CTA. Four drip irrigation CNC projects were found in the IALC ex post sample: E30686, E30895, E40244, and E40252. Two are part of the 2014 sample and two are part of the 2013 sample with</p>	<p>Actual derivation of the HOU was not provided as a calculation workbook. No indication how PG&E intends to verify the assumed HOU post-install for this new load addition project. No savings calculation workbooks for the project were submitted. The irrigation schedules need further hourly details. Missing citations to substantiate prior evaluation studies as the basis for the throttling valve baseline.</p>	n/a	-	-	-	-	-	n/a	-	-	-	-	-
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Attachment B: Custom and Workpaper Performance Feedback

		completed FSRs.													
NC0128326	Increased Oil Pipeline Diameter	A review of design documents called into question crude flow values used in ex-ante estimates and pump control mechanism (design documents indicate VFD as baseline control for new construction project)	It was unclear to CPUC staff why this project was ever proposed, along with related VFD measures treated as separate measures. Design	-	n/a	-	-	-	-	n/a	-	-	-	n/a	m

Attachment B: Custom and Workpaper Performance Feedback

			document that should have formed the baseline for this new construction project were not consistent with project claims in terms of expected pipeline crude flow rates and pipeline pump control.												
1445-13-1436	VFD on Split-pass Design Steam Generator	<p>CPUC Staff reviewed the PA's post installation submission and noted data is missing for the period of 12/8/14-12/15/14. The missing data may affect the annual hour of operation used in the savings analysis.</p> <p>CPUC Staff noted that other measured data were not used in the final analysis.</p> <p>CPUC Staff noted that an important variable that was theoretically calculated was not confirmed by measurement. Staff noted that the ex post team had confirmed the value of this</p>	<p>Did not use field measured data in the final savings analysis. Did not attempt to verify important savings parameter through field measurement. Did not account for missing data which may affect annual hours of operation used in the final analysis. Did not have a detailed M&V plan which may have produced more</p>	n/a	n/a	n/a	m	n/a	m	-	m	-	n/a	n/a	-

Attachment B: Custom and Workpaper Performance Feedback

		parameter by measurement for a similar project at another facility operated by the same customer. The PA was required to revise the saving analysis to use the measured value verified by the ex post evaluation team.	reliable savings estimates if properly executed.												
IRCX-080	Air Compressor RCx	RCx program with retrofits, normal replacement, early replacement measure types. Potential regressive baseline measure where like for like replacement is proposed for compressor control system. M&V plan lacking detail. 3P implementer has not significantly improved efforts	PA described controls retrofit may be regressive baseline. M&V plan lacks detail. Retrofit measures classified as "RCx". Inability of PA and 3P implementer to incorporate	n/a	n/a	n/a	-	n/a	-	-	m	m	-	n/a	-

Attachment B: Custom and Workpaper Performance Feedback

		following implementation of a similar CPUC Staff-selected project for the same 3P implementer.	past review findings into future projects. Did not fully respond to EAR requirements.												
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Attachment B: Custom and Workpaper Performance Feedback

1481-08	<p>Manufacturer of Electric automobiles/ Spray Painting booths and attached ventilation/emi ssions abatement</p>	<p>Despite previous guidance, the PA has not followed CPUC policy regarding parallel review. The incentive agreement was signed 8 months before the PA uploaded documents for CPUC Staff review.</p> <p>The PA did not follow guidance for determining the ISP for this project.</p> <p>Free ridership appears to be a potential issue, that has not been addressed by the PA. There is little evidence of Program influence.</p> <p>There are discrepancies in the documentation regarding the project type, ex ante savings.</p> <p>Construction is likely well advanced, before any documents uploaded to the CMPA.</p> <p>The 3P implementer appears to have executed an incentive agreement before the PA completed its</p>	<p>Despite previous guidance, the PA has not followed CPUC policy regarding parallel review. The incentive agreement was signed 8 months before the PA uploaded documents for CPUC Staff review.</p> <p>The PA did not follow guidance for determining the ISP for this project.</p> <p>Free ridership appears to be a potential issue, that has not been addressed by the PA. There is little evidence of Program influence.</p> <p>There are discrepancies in the documentation regarding the project type, ex ante savings. Construction is</p>	-	-	-	-	-	-	-	-	-	n/a	n/a	-
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Attachment B: Custom and Workpaper Performance Feedback

		<p>technical review, and one day after the PA placed the project on the bi-weekly selection list.</p>	<p>likely well advanced, before any documents uploaded to the CMPA. The 3P implementer appears to have executed an incentive agreement before the PA completed its technical review, and one day after the PA placed the project on the bi-weekly selection list.</p>															
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Workpapers

	Metric	Benchmarks
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) Fraction of deemed measures for which workpapers have been submitted to Commission prior to measure being offered in the portfolio; 2) Fraction of workpapers disclosed prior to or during work commencement and submitted upon completion rather than withheld and submitted in large quantity; 3) Fraction of workpaper development projects for new technologies submitted for collaboration versus total number of workpapers for new technologies submitted
Noted Progress:		
Needs Improvement: PG&E appears to have stopped submitting regular summaries of their workpaper development efforts. The EAR team uses these reports to anticipate workload, especially now that the EAR team is providing an increased number of preliminary workpaper reviews.		
To Be Determined: Through the end of 2015, the EAR team will be examining claims for the following: <ol style="list-style-type: none"> 1) Claims that appear to be deemed measures which were instead claimed as custom measures due to the lack of workpaper submission. 2) High contributions of new technology measures that should have been subject to early review and collaboration. 		
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)
Noted Progress: The EAR team performed preliminary reviews on six PG&E workpapers and found that two had all information necessary in order to move on to a detailed review. The one completed detailed review generally included enough information for the detailed review, however, it was missing information needed to address specific requirement of 12-11-015 related to ensuring high quality LED products.		
Needs Improvement: Four out of six PG&E workpapers have been delayed at the preliminary review stage due to incomplete submittals. CPUC notes that the ex ante team has increased its efforts to perform preliminary reviews on workpapers and, as a result, a large number of comments and requests for additional information are expected. PG&E should use this first group of preliminary reviews to help institute improvements to their workpaper developments and content which would result in more workpapers passing through preliminary review and on to the detailed review stage.		
To Be Determined: Preliminary reviews will continue throughout the year.		
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)
Noted Progress: PG&E has encountered some barriers to meeting ex ante data base specifications but has been actively engaged with the EAR team and CPUC staff to implement interim solutions until full integration is accomplished.		
Needs Improvement: As discussed under 3, below, there are several short comings in PG&E's ex ante data, even though their submittal process and content is clearly transitioning to the required format.		
To Be Determined: The critical deadline for full implementation of the ex ante database is 1/1/2016. Recent communications and meetings indicate that PG&E intends to be fully compliant by that time.		

Attachment B: Custom and Workpaper Performance Feedback

Metric	Benchmarks
<p>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)</p>	<p>1) Percentage of workpapers that include appropriate program implementation background as well as analysis of how implementation approach influences development of ex ante values;[6] 2) Percentage of workpapers which, on initial submission, were found to include all applicable supporting materials or an adequate[7] description of assumptions or calculation methods</p> <p>Noted Progress: PG&E has begun a transition to include ex ante data with its workpapers that is compatible with the ex ante database accessible via the READI interface. While significant improvements are still needed, both in content and format, the EAR team highlights this improvement and hopes that PG&E’s data production will continue to improve.</p> <p>Needs Improvement: As indicated above, ex ante data submittals still have areas of substantial inconsistency with the ex ante database accessible via the READI interface. PG&E continues to have problems with the ex ante data format, structure, and content. Ex ante data format problems include the use of non-compliant text for fields that require the specification from a list of standardized codes, the inclusion of incorrectly translated ASCII characters, and the use of legacy codes that were dropped from the ex ante data format after DEER2008. Ex ante data structure problems include specifying cost qualifiers in an Implementation record that are not specified in the linked MeasureCost records and submitting redundant records where all primary keys are the same. Ex ante content problems include the submission of DEER data with new measure IDs and not include enough detail in description fields to understand the measure implementation and technologies involved in the measure.</p> <p>Supporting documentation is sometimes missing from the workpapers (e.g. PGECOHC126 missing UES calcs for non-DEER measure technologies) or the narrative was inconsistent with the associated ex ante data (e.g. PGECOPRO111 where measure app type of ROB was inconsistent with savings impacts that showed no above code savings.).</p> <p>To Be Determined: Preliminary and detailed reviews will continue throughout the year. Additionally, the EAR team will be continuing to review ex ante database submittals.</p>
<p>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</p>	<p>Percentage of high profile program, or high impact measure, workpapers submitted for collaboration or flagged for review</p> <p>Noted Progress: PG&E provided regular updates on its progress of developing LED ambient fixtures and their proposal for a new reporting unit of light output instead of power input.</p> <p>Needs Improvement: A claims review (see below) is needed to provide more detailed evaluation of this metric.</p> <p>To Be Determined: Similar to 1b, above, the EAR team will be reviewing claims for high contributions of new technology measures that should have been subject to early review and collaboration.</p>
<p>5 Quality and appropriateness of project documentation (e.g., shows incorporation of Commission policy directives)</p>	<p>Frequency of inappropriate or inferior quality at the time of initial Commission staff review (higher frequency = lower score)</p> <p>Noted Progress: PG&E is working toward full implementation of the 2013-2014 lighting disposition which addressed the improper use of pre-existing baselines in ROB measures. In the reviewed submittals, PG&E appears to have updated ROB measures to utilize code baselines instead of technologies that are likely worse than ISP or would not be allowed by Title 24 under typical ROB or new construction circumstances.</p> <p>Needs Improvement: Reviews show some inconsistencies between workpaper narratives and submitted data indicating a possible need for additional interaction and guidance from the ex ante team. For example, in PGECOLTG179r0 the narrative describes the specific technologies covered but the ex ante data does not define measures in terms of technology IDs, which was specifically required by “2015_Lighting_Retrofit_Guidance_mem_Final-2.docx” issued by CPUC staff on January 27, 2015. As another example, PGECOPRO111 states that the measure app type is ROB, but there are no above code savings shown in the submitted data, which raises the concern that these may be “to code” measures that would be disallowed under current CPUC policy.</p> <p>For revised workpapers, it is difficult to determine what the actual revisions are from previous versions and how the ex ante values have changed. There typically is no summary in the workpaper of the nature and magnitude of the revisions. For workpapers that have undergone review, input, or development from the CalTF, workpapers don’t typically include any discussion of how the final workpaper values have been influenced by the CalTF process.</p>

Attachment B: Custom and Workpaper Performance Feedback

Metric	Benchmarks
	<p>To Be Determined: The EAR team and CPUC staff have provided several general and project specific documents that should serve as references for all future PG&E workpaper development efforts such as:</p> <ul style="list-style-type: none"> • Lighting workpaper guidance memo: “2015_Lighting_Retrofit_Guidance_mem_Final-2.docx” issued by CPUC staff on January 27, 2015 • Detailed review of PGECOLTG179r0 • Feedback on the proposed LED tube replacement workpaper • Summary of concerns on VRF workpaper development “VRFFeedbackToPGE-FinalDraft2.docx” sent to PG&E on May 13, 2015
<p>6a Depth of IOU quality control and technical review of ex ante submittals: Third party oversight</p>	<p>Quality of workpapers prepared by consultants, third parties, and local government partners submitted by IOUs</p> <p>Noted Progress: The EAR team observes additional effort on the part of PG&E and its consultants to include more research and background information in workpapers. This is a step forward, however, the EAR team has concerns that the additional effort still has not necessarily increased the overall quality of the reviewed workpapers as discussed in the next section.</p> <p>Needs Improvement: The EAR team has provided feedback to PG&E on submitted workpapers and workpaper proposals that highlight areas of potential improvement related to oversight of consultant activities. One example is the LED fixture retrofit workpaper where the review highlighted both policy and technical requirements that were not well addressed by the workpaper. Another is the ongoing effort to develop a new HVAC variable refrigerant flow (VRF) workpaper where the development activities to date do not adequately address Commission requirements for fuel switching and baseline energy use. The EAR team acknowledges that similar feedback on the VRF proposal was provided in 2014 and is awaiting further information from PG&E and its consultant.</p> <p>To Be Determined: The EAR team will continue to review PG&E workpapers and include the results of these reviews in determining the final ESPI scores for 2015.</p>
<p>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</p>	<p>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;</p> <p>2) Percentage change from IOU-proposed values to ED-approved values (higher percentage = lower score)</p> <p>Noted Progress:</p> <p>Needs Improvement: Preliminary reviews show inconsistencies between narrative and submitted ex ante data as discussed above.</p> <p>To Be Determined: The EAR team will continue with preliminary and detailed reviews with respect for the feedback provided in the 2014 final ESPI memo including usage of HTR-NTG values, development of current costs, and consideration for industry standard practice. The EAR team will also be reviewing workpapers and providing feedback to all PAs in terms of how the change documentation for revisions summarizes the basis, nature and magnitude of changes.</p>
<p>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</p>	<p>Percentage of workpapers with analysis of existing data and projects that are applicable to technologies covered by workpaper</p> <p>Noted Progress:</p> <p>Needs Improvement: The EAR team has highlighted in the past the need to utilize available data from participants as a way to collect information about technologies offered in the program. For example, the lighting disposition required that measures defined in terms of ranges must use the highest wattage of the range for the measure and the lowest wattage of the range for the baseline. However, the EAR team has also noted that PAs’ own data on participants could be used to determine typical wattages within the ranges, and in turn, propose updates to the measure wattage definition. Another example is the VRF workpaper development effort, where the participant installations may serve as a source of data that could be used to address some of the uncertainty highlighted by the EAR team with respect to typical installed configurations and performance.</p> <p>To Be Determined:</p>

Attachment B: Custom and Workpaper Performance Feedback

	Metric	Benchmarks
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
<p>Noted Progress: Drip irrigation workpaper revised to remove measures that were likely non-savers based on EAR team review of workpaper submitted for 2013-2014 program cycle. Implementation of the lighting disposition requirements is progressing. Additionally, PG&E is responding to preliminary reviews and resubmitting workpapers with responses to comments and corrections.</p>		
<p>Needs Improvement: It is not clear from food service workpapers submitted by other IOUs that directions from D.11-07-030 requiring ISP analysis have been implemented.</p>		
<p>To Be Determined: The EAR team will continue to perform additional detailed reviews and compare final workpapers against preliminary review comments as well as direction from previous workpapers reviews and other Commission staff and EAR team directions.</p>		
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
<p>Noted Progress: PG&E incorporates DEER values directly from READI where technology and measure definitions match. PG&E has acknowledged that internal system improvements are needed that will end the practice of downloading, renaming, and resubmitting DEER values obtained from READI.</p>		
<p>Needs Improvement: The practice of downloading, renaming, and resubmitting DEER values or IDs obtained from READI is not acceptable.</p>		
<p>To Be Determined: As the EAR team performs additional workpaper reviews, PG&E's submissions are expected to improve.</p>		
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[11]
<p>Noted Progress: PG&E has begun to implement processes for providing data submittals in a format that is compatible with the ex and database accessible using READI. The recent lighting workpaper for LED fixtures and retrofit kits shows improvement in development of code baselines for ROB lighting measures and was well documented and easy to follow, which facilitated a quick EAR team detailed review.</p>		
<p>Needs Improvement: As with other metrics, the EAR team urges PG&E to review previous direction and ESPI memos for improvement opportunities. Examples are the ISP direction for food service measures from D.11-07-030, the lighting workpaper guidance memo, and the cumulative VRF feedback.</p>		
<p>To Be Determined: Only one detailed workpaper review has been completed to date. EAR team will continue to perform detailed reviews which will help to establish the final score for this metric.</p>		