2018 DISPOSITION UPDATE FOR HIGH AND LOW BAY LED FIXTURES BASED ON RESUBMISSION OF WORKPAPER PGECOLTG178 REVISION 3 IN RESPONSE TO A 2017 PHASE 2 DISPOSITION
California Public Utilities Commission, Energy Division
May 7, 2018

1. Review Scope and Summary of Direction

This disposition includes an update to the detailed review disposition of PG&E's workpaper PGECOLTG178 revision 3, covering high- and low-bay interior LED fixtures. The latest workpaper submission dated April 11, 2018 is approved on an interim basis from April 1, 2018 through December 31, 2018[1]. This disposition directs PAs to complete additional research, analysis and revisions to address standard practice baseline as well as measure and baseline costs and to submit a revised workpaper for the program year starting January 1, 2019. This disposition applies to the most recently submitted versions of the workpapers listed in Table 1. CPUC staff notes that this list may not be exhaustive. As of April 1, 2018, all PAs shall follow this disposition in developing ex ante values for interior high and low bay lighting fixtures. Direction in this disposition applies to all measures similar to those described in the workpaper list below. Furthermore, direction covering the development of ex ante savings shall also apply to custom projects for similar measures.

Table 1 - Submitted Workpapers Covered by This Disposition

ID	PA	Title
PGECOLTG178	PGE	LED High-Bay and Low-Bay Fixtures
SCE13LG111	SCE	LED High and Low Bay Fixtures
SCE17LG086	SCE	Interior Linear Fluorescent Fixture

2. Ex Ante Value Review

2.1. Background

PG&E submitted PGECOLTG178 revision 3 for Phase 2 review in September of 2017. CPUC staff issued a disposition with direction to:

1. Develop a standard practice baseline that reflects the typical mixture of efficiency levels that are currently selected in normal replacement situations.
2. Define measure tiers in a way that assigns greater savings for higher performance products and place an efficacy floor on eligible products.
3. Due to the rapid changes in the marketplace, review available products and typical practices at least annually and update the workpaper as the review indicates.
4. Revise measure definitions so that baseline and measure zonal lumen output levels represent similar levels of service.

CPUC staff, the EAR consultants and PG&E staff met several times to collaboratively develop interim ex ante values for the normal replacement (NR or replace-on-burnout, ROB) and new construction (NC) measure application types with the understanding the PAs would be completing additional cost and standard practice research during 2018. PG&E recently submitted a workpaper update with revised ex ante values based on the results of this collaboration.

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[1] Previously approved workpapers from all PAs may be used as the basis of claims through March 31, 2018.

2.2. Gross Baseline and Relation to NTG

These measures are covered by the current DEER NTG default value of 0.60. Current NTG values assume that the standard practice baseline is comprised only of lesser efficient HID technologies such as metal halide and high-pressure sodium fixtures. The original disposition directed PG&E to develop a standard practice baseline that considers the fraction of normal replacements and new construction installations that would likely be LEDs. PG&E's revised workpaper updates the standard practice baseline to be entirely LEDs in most cases. Increasing the efficiency of the standard practice baseline removes from the gross savings those fixtures that would be installed as standard practice and therefore should not be considered free riders. Since the baseline now reflects the fraction of LEDs that are likely standard practice, and are no longer considered free-riders, the NTG value for normal replacement and new construction measure application types should be increased.

2.3. Costs

CPUC staff, the EAR team and PG&E staff are in agreement that additional research is needed to develop reasonable technology costs. PG&E has proposed to set the incremental cost at 110% of incentives and will continue with cost research for inclusion in their next revision to the workpaper.

3. Direction

CPUC staff approves the ex ante values in the 11 April 2018 submitted workpaper update for normal replacement and new construction measure application types on an interim basis for the period of April 1, 2018 through December 31, 2018, and issues the following additional direction on Net-to-Gross value, measure impacts, measure costs and ex ante data below.

3.1. Net-to-Gross Update

As discussed in Section 2.2, above, the Net-to-Gross Ratio for all the covered measures, utilizing a normal replacement or new construction measure application type, is revised to 0.91. The EAR team has added this value to the Preliminary Ex Ante Review Database (PEARdb) accessible via the READI tool.

3.2. Ex Ante Data

The EAR team has uploaded approved covered measure definitions to the PEARdb with a start date of April 1, 2018. All interior lighting measures covered by Section 1 are revised to have an expiration date of 3/31/2018. EAR team has made minor revisions to PG&E's submitted ex ante data, documented in the attached workbook, "InHiLowBayLED-EAD-7May2018-1.xlsx".

3.3. Cost Data

Cost data submitted with the revised workpaper is approved on an interim basis for the period of April 1, 2018 through December 31, 2018. The PAs are directed to perform additional cost research on measure and baseline LED fixtures and re-analyze cost data to provide updated values for measure incremental cost with the next workpaper update.

3.4. Standard Practice Baseline

PG&E is working with an evaluation consultant to conduct a standard practice baseline study to inform an update to the baseline technology mix in the workpaper. PG&E expects results by the fall of 2018 and will submit them to CPUC staff for review and approval. Workpaper updates which propose any baseline revisions, shall consider approved findings of the baseline study.

4. Additional Program Implications

The workpaper uses a fixed baseline mixture of technologies and performance across all measures and installation types (high bay or low bay). This baseline may not be appropriate for all customer classes. Furthermore, some customer classes may offer an opportunity under an accelerated replacement (AR) measure application. The current workpaper revision only covers NR (or ROB) and NC measure applications. For accelerated replacement (which may also be appropriate treatment for "one off" fixture replacements, or certain customer classes) it is appropriate to add that measure type treatment in a future workpaper submission. Such a submission would need to include the preponderance of evidence (PoE) approach that would be used to establish program induced accelerated replacements to qualify the participant for the AR treatment. The standard practice baseline assignments approved on an interim basis are also appropriate for use as the second baseline in a AR measure application. The results of the baseline study, upon CPUC staff review and approval, should also be considered in any update to the AR second baseline.