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| Workpaper ID | PGECOLTG177 r6 | Title | LED BR-R-Lamp |
| WPA Location and File Name: | https://deeresources.info/wpa/projects/14320 | | PGECOLTG177 R6 LED BR-R-Lamps.zip |
| PGE Stated Scope of Submittal: | Updated baseline technology mix to 40% LED, 10% CFL, and 50% Incan/Halogen; New WRR = 4.17 for <11w, 3.28 for >=11W to <14W, and 2.97 for >14W per "2018ScrewInLampSavingsMethods-1March2018" disposition. Base case costs and measure costs have also been updated. Added measure type ER for Res DI channel and updated Program Requirements accordingly. Updated NTG to 0.91 with the new NTG ID "All-Ltg-ScrwlInLED". Effective 7/1/2018. | | |
| Submitted Date | 5/7/2018 | 3rd Party WP? | No |
| Response Date | 5/22/2018 | 15 # days since submission | Complete? No |

| Submitted Files Pass Preliminary Review? | | | | | | | | | Documents | | |
|--|----|-----|---------------------|-----|----|-----|------------------------|-----|-----------|-----|----------------------|
| Yes | No | N/A | Narrative Workpaper | Yes | No | N/A | Data in Ex Ante Format | Yes | No | N/A | Supporting Documents |

To pass the preliminary review, items above must be marked Yes or N/A. If any item is marked No, please address comments in order to complete the workpaper submittal.

| Narrative Workpaper Review Comments | | Prospective? |
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| Program Implementations and Measure Types | <p>Workpaper is a final revision of the Phase 1 submission and includes measures with NR/NC and AR measure application types. The NR/NC measures are approved as submitted. The AR measures are not approved. See further discussion below for required additional information and/or acceptable revisions.</p> <p>AR Measure Definitions: The AR measures define a specific pre-existing baseline, in terms of lamp wattage, along with a specific measure wattage lamp. Pre-existing baselines consist of specific wattage values for incandescent and CFL lamps, yet the range of installed wattages is likely much broader. Also, the measures are a limited number of specific wattages, indicating that programs are only allowed to install lamps of that specific wattage. At a minimum, revise the workpaper to include program requirements that describe how the baseline and measure wattages are established when the actual existing wattage or the installed measure wattage do not match the measure definition. These requirements shall be written in such a way that the delta watts cannot be overestimated. Alternatively, measures can be added to the workpaper to cover additional likely cases, such as an expanded number of incandescent base wattages; greater number of CFL base wattages; and greater number of measure LED wattages.</p> | |
| UES code / standard practice | <p>Accelerated Replacement Measures Require 2nd Baseline and RUL: The AR measures must also include a second baseline and an RUL. The second baseline represents the expected standard practice at the end of the RUL period. For incandescent existing baselines, it is reasonable to assume the second baseline is equal to the standard practice baseline directed in the disposition (40% LED/10% CFL/50% incandescent) using the approved wattage reduction ratio from the Phase 1 disposition, applied to the specific measure wattage. The Phase 1 WRR values are not acceptable for the second baseline of measures with a CFL pre-existing lamp as this would imply a regressive second baseline. Therefore, the second baseline for these measures shall be revised to assume 40% LED and 60% CFL. See the RUL discussion below.</p> | |
| UES calculation methods | <p>Accelerated Replacement Measures Require 2nd Baseline and RUL: Revise measure definitions to include a second baseline. For incandescent existing baselines, it is reasonable to assume that the second baseline is equal to the standard practice baseline directed in the disposition (40% LED/10% CFL/50% incandescent) using the approved wattage reduction ratio from the Phase 1 disposition, applied to the specific measure wattage. The Phase 1 WRR values are not acceptable for the second baseline of measures with a CFL pre-existing lamp as this would imply a regressive second baseline. Therefore, the second baseline for these measures shall be revised to assume 40% LED and 60% CFL.</p> | |
| EUL/RUL | <p>Accelerated Replacement Measures Require 2nd Baseline and RUL: Per D.12-05-015 the RUL shall be based on the removed technology, not the installed measure technology and the default RUL is equal to 1/3 of the accepted EUL, which would make the RUL for these measures just over 1 year for CFL and less than 1 year for incandescent existing conditions baselines. Longer RUL values would assume that customers would continue to purchase less efficient lamps (if still available for purchase) or had some of the inefficient lamps in storage that they would continue to use if the existing lamp were to fail instead of being replaced by the program implementer. CPUC staff approves, on an interim base, a RUL of 3 years for the specific case of direct install lamp removal and replacement for the 2018 program year only. In 2019 and beyond, absent Commission staff reviewed and approved research that support the continued is of the extended RUL value, the value shall be set to 1 year.</p> | |
| Cost methods | | |

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| Other | <p>Additional Program Rules:</p> <p>Direct install contractors must collect and document/inventory all removed lamps to support their using the AR measure application type. The extended RUL and first period savings authorized herein are based on the assumption that, without program intervention, customers would continue to install lamps similar in performance to the less efficient pre-existing lamps. Therefore, direct install contractors shall be directed to collect all stored lamps that are similar to the pre-existing lamps and thus candidates to be replacements upon burnout of the pre-existing lamps; failure to collect stored incandescent/halogen/CFL replacement lamps shall result in the extended RUL value being disallowed. All collected lamps are to be verified to have been appropriately destroyed to ensure no continued later use; failure to provide proof of destruction shall revert all such reported replacements to be treated as ROB/NR.</p> |
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| Ex Ante Data Review Comments | |
| MeasureCatalog | |
| Table | |
| Measure Table | |
| EnergyImpact Table | |
| Measure Cost Table | |
| All | Note that Commission staff will review ex ante data upon resubmission addressing this preliminary review. |

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| Supporting Documentation Comments | |
| 1 | |
| 2 | |

Reviewer: Kevin Madison

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