Preliminary Workpaper Review

Workpaper ID	PGECOLTG165 r6	Title	LED A-Lamp
WPA Location and File Name:	https://deeresources.info/wpa/projects/14320		PGECOLTG165 R6 LED A-LampsEDReportsCorrected.zip

PGE Stated Scope of Submittal:	Excluded all building types for ROB measures except "Res". Changed ROB measures to Res DI only. Added new measure codes for ROB as follows: LT394 for 40W equivalent 110 LPW, LT395 for 40W equivalent 120 LPW, LT396 for 60W equivalent 120 LPW, LT397 for 100W equivalent 120 LPW for ROB. Added ER measure type (LT398 to LT431) for Res DI channel only. 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		Prospec-tive?
Program Implementations and Measure Types	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. **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 the legacy EISA wattage values of 40, 60, 75 and 100 watt. As of 1/1/2014, these lamps were not allowed to be sold in California. Furthermore, EISA equivalent halogen lamps of 29, 43, 53 and 72 watts have not been allowed for sale in California as of 1/1/2018. It is unlikely that there are legacy incandescent and halogen lamps still in service in high use scokets, unless similar technology lamps were stored from prior purchases. The EAR team recommends adding measures that assume the halogen wattage baseline or replacing the incandescent baseline with a halogen baseline unless contractors can be demonstrated to be able to accurately differentiate between the two in their documentation and reporting. There are only a limited number of CFL wattages defined for baselines in the workpaper, 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 the EISA halogen base wattages; greater number of CFL base wattages; and greater number of measure LED wattages.	
UES code / standard practice	**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. It is reasonable to assume that the second baseline is equal to the standard practice baseline directed in the disposition (25% CFL/75% LED), using the approved delta watts values for each lamp wattage and efficacy from the Phase 1 disposition. See the RUL discussion below.	
UES calculation methods	**Accelerated Replacement Measures Require 2nd Baseline and RUL:** Revise measure definitions to include a second baseline. It is reasonable to assume that the second baseline is equal to the standard practice baseline directed in the disposition (25% CFL/75% LED), using the approved delta watts values for each lamp wattage and efficacy from the Phase 1 disposition.	
EUL/RUL	**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.	
Cost methods		

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Other	**Additional Program Rules:** 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.	

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.	

Supporting Documentation Comments	
1	
2	

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