

DOCKETED

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Staff Supplement to CASE Report #2019-NR-LIGHT1-F

Date: 11/13/2017

Pages: 2

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Subject: Nonresidential Outdoor Lighting Power Allowances, 2019-NR-LIGHT1-F

DESCRIPTION OF PROPOSED REGULATORY CHANGES

CASE report #2019-NR-LIGHT1-F, titled Nonresidential Outdoor Lighting Power Allowances, proposes to update lighting power allowances (LPAs) for all outdoor lighting applications, with the use of light emitting diode (LED) technology as the basis for LPA calculations. The proposed updates and other changes are summarized as follows:

1. Both Table 140.7-A (General Hardscape lighting) and Table 140.7-B (Specific Application lighting) are proposed to be updated with new LPA values to reflect this new baseline of using high efficacy LED lighting.
2. The CASE Team developed new LPAs that can be met by 3000K luminaires as many local governments have installed warm CCT outdoor luminaires (3000K to 4000K).
3. The CASE Team also developed a new multiplier as additional lighting power allowed for narrow band spectrum lighting where required by local or state law for astronomy observatories and habitats for sensitive nocturnal animals.
4. Modifies ambiguous language that guides the application of backlight/uplight/glare (BUG) ratings per IES RP-15-11, Addendum A, to outdoor luminaires.
5. Also, modifies BUG rating requirement to apply to lower-wattage outdoor luminaires.

Staff agrees with the proposed changes as indicated in Item #1, 2, 3, and 5, and has incorporated substantively similar changes into the proposed Express Terms.

Staff disagrees with the proposed changes indicated in Item #4, as Staff does not find the proposed term language “Luminaire Shielding Requirement” to be a better alternative to the existing term “Luminaire Cutoff Requirement”. There are various luminaire design approaches to achieve IES BUG rating and the proposed term “Luminaire Shielding Requirement” may unintentionally imply or indicate shielding as the sole method to achieve an acceptable IES BUG rating.

STAFF ANALYSIS AND CONCLUSION

Staff has analyzed the submitted CASE report and reached the following conclusions for the measures included in the Express Terms:

- Based on the evidence presented in the CASE Report, the measures, as proposed, appear to be cost effective and the author appears to have appropriately followed the Energy Commission's Life Cycle Cost methodology.
- Measure costs premiums presented in the CASE Report appear reasonable and appropriate for the measure proposed.
- Measure energy savings presented in the CASE Report appear to have been appropriately modeled and appear credible.