

CALIFORNIA ENERGY COMMISSION

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Staff Supplement to CASE Report #

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Subject: Nonresidential Outdoor Lighting Power Allowance, 2016-NR-LTG6-F

California Energy Commission

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DESCRIPTION OF PROPOSED REGULATORY CHANGES

CASE report #2016-NR-LTG6-F, titled Nonresidential Outdoor Lighting Power Allowance, proposes to make the following changes to the Standards:

- Reduce the outdoor lighting power allowances to values comparable to the levels presented in ASHARE 90.1-2013, where they are shown to be cost effective.
- Lower the outdoor lighting power allowances for general hardscape in Table 140.7-A and building entrances and ATM Machine lighting in Table 140.7-B to the values comparable to ASHARE 90.1-2013.
- Add Lighting Zone 0 (LZ0) to Table 10-114-A, 130.2-A and 130.2-B to ensure LZ0 is included as part of the Standards in terms of lighting power allowance regulation. This aligns the Standards with the exterior lighting zones specified in ASHRAE 90.1-2013.
- Add a new outdoor lighting allowance category to Table 140.7-B for ATM lighting.
- Remove the exemption for automatic teller machine (ATM) lighting from Section 140.7(a). This relates to the proposed lighting power allowance for ATM Machine Lighting in Section 140.7: the exemption is no longer necessary as the proposed regulation in Section 140.7 will govern the lighting power requirements for ATM Machine Lighting.
- Remove the exemption for tunnels and bridges lighting from Section 140.7(a). The lighting requirement for tunnels and bridges will be the same as the general hardscape lighting allowance.
- Reduce the LPA values in Table 140.7-B for Building Entrance or Exit and ATM Machine Lighting.

Staff agrees with the proposed changes to Section 130.2 and 140.7, and have incorporated substantively similar changes into the proposed Express Terms.

Staff does not agree with the proposed changes to TABLE 140.7-B that were not shown to be cost effective in the CASE report reviewed by staff, and have not made those proposed changes to lighting power allowance values.

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.
- Measure environmental impacts presented in the CASE Report appear reasonable and appropriate for the measure proposed.

Staff additionally finds that the alternate proposal for Table 140.7-B falls within the analysis of the CASE report, and is found to be feasible and cost effective based on the report's analysis of the CASE proposal for Section 140.7, for the following reasons:

- Adopting only the cost-effective changes to Lighting Power Allowances (and not adopting those changes that were not cost effective) does not change the findings that relate to these LPA values, as each change is described separately within the CASE report.