

DOCKETED

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Staff Supplement to CASE Report #2019-NR-LIGHT6-F

Date: 10/20/2017

Pages: 2

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Subject: Nonresidential Indoor Lighting Alterations – Measure Number 2019-NR-LIGHT6-F

DESCRIPTION OF PROPOSED REGULATORY CHANGES

Nonresidential Indoor Lighting Alterations – Measure Number 2019-NR-LIGHT6-F proposes to make the following changes to the Standards:

- Clarify that lighting alteration projects that increase lighting power are subject to the lighting alterations code.
- Reduce the exception based on the number of luminaires in the space from two to one.
- Require partial OFF occupant sensing controls for stairwells when the percent reduction option is used and where these controls are required under Section 130.1.
- Require a reduction of total existing lighting wattage of altered luminaires by 50% of the rated wattage under the percent reduction option rather than 50% for office, retail, and hotel spaces and 35% for all other spaces.
- Add shut-OFF control requirements for stairwells to Section 130.1.
- Add definitions for “luminaire alteration” and “one-for-one alteration.”

Staff agrees with the proposal to reduce the number of luminaires from two to one per enclosed space in the existing exception to the lighting alteration requirements, and with the proposal to require partial OFF occupant sensing controls under the percent reduction option where required under Section 130.1. Staff has incorporated substantively similar changes into the proposed Express Terms.

Staff agrees with the concept of establishing a universal wattage reduction target for all spaces to simplify the language; however staff has chosen a 40% value rather than a 50% value based on incorporating suggestions from another lighting alterations code change proposal.

Staff agrees with clarifying the application of the lighting alterations Sections, but does not agree with the specific language recommended by the proposal. Applicability of lighting alteration requirements is based on the size of the project (in terms of number of affected luminaires) in order to ensure cost effectiveness. The proposed language does not include a numeric threshold and thus risks triggering control requirements when they would not be cost effective to apply,

such as replacing a single 15w LED fixture with an 18w LED fixture. Staff instead proposes to retain the existing threshold of altering 10% or more of the luminaires serving a space, and to state it more clearly in the associated Section.

Staff disagrees with the proposed change to add stairwells to the list of spaces where partial OFF controls are required under Section 130.1. As the title of this proposal is “Nonresidential Indoor Lighting Alterations”, and this change relates to newly constructed buildings and additions as well as alterations, there is a risk that affected stakeholders are not aware of this proposal and would feel misled by its submittal via this proposal document, especially given the parallel submittal of a proposal titled “Nonresidential Indoor Lighting Controls” by the same submitter. In addition, the consideration given to the effect of this change on newly constructed buildings and additions in the proposal is relatively scant, and does not include the complete cost benefit analysis required to update requirements applicable to these scenarios. For these reasons staff declined to include this proposed change in the Express Terms.

Staff also chooses not to include the two proposed definitions. The Express Terms language does not use the phrases “luminaire alteration” or “one-for-one alteration,” thus the added definitions are unnecessary.

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.

Staff additionally finds that the alternate proposal for Section 141.0 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 141.0.