To:	California Energy Commission Dockets Office, MS-4 1516 Ninth Street Sacramento, CA 95814-5512	**Date:**	22 February 2013
		From:	Michael Lindsey IALD Representative
		Pages:	3
cc:		**Project:**	2013 Building Energy Efficiency Standards Nonresidential Compliance Manual
		Sent via:	Email

California Energy Commission
DOCKETED
12-BSTD-5
TN # 69645
FEB 22 2013

Regarding: 12-BSTD-05 Nonresidential Compliance Manual (Chapter 5)

Comments:

Dear California Energy Commission,

On behalf of the IALD Energy & Sustainability Committee, I'm pleased to submit the following comments regarding the Nonresidential Compliance Manual language.

Please review the items listed below for locations of possible change. We have indicated grammatical errors as well as other potential concerns.

Page	Comments:
General	• This code calls for a lot of non-prevalent and unproven technology, sometimes as a requirement (such as power line control and dimming MH fixtures). This is unnerving in general.
General	• Requiring dimming fluorescent adds considerable cost to the lighting system, possibly 25%. There will be significant pushback against this when it takes effect.
1-2	• "Error! Bookmark not defined!" (7 instances)
1-12	• 1.2.2C should read: "For lighting products required to be listed in directories or certified by someone other than the Energy Commission, installation shall be limited to those that comply…"
1-14	• 1-2.4 should read "…are not covered by the title 20 appliance efficiency standards; field assembled lighting control systems…"
1-15	• B.1.A.ii should read: "Be able to set back or turn off lighting at night…" (used as a noun setback is one word, but used as a verb set back is two words)
1-19	• CRI is a flawed metric, especially for color rendering in LED because the metric itself is based on perception and pegged to a moving target. There are better rendering metrics for LEDs that could be used in a mandate and be more effective.
1-27	• 1.4.1.A There used to be an exception for automatic occupancy control in spaces like corridors, etc. Isn't moving to manual controls everywhere a step backward? What is the point of requiring manual switches in occupancy controlled restrooms, especially if it is not accessible to the public?
1-42	• 1.4.4.C.3.d is strangely worded and I cannot understand what it is trying to convey about parking lots.
1-43	• "Error! Reference source not found." (2 instances)
1-44	• "Error! Reference source not found." (1 instance)
1-44	• Daylight dimming with this metric does not account for contrast ratios between the outdoor and indoor views from a room or the surface brightness of the window which cause the room to appear dark when the electric lights are dimmed even though the metered light levels may be adequate. This could lead to disabling of the automatic devices. Also, the lack of a shading

	requirement could/will lead to problems with glare from direct sunlight in east/west facing windows.
1-44	• 1.4.4.C.4 should read: "In a parking garage area, having a combined total of…"
1-45	• "When fully daylit, lighting in parking garages has to be turned all the way off…" Define 'fully daylit'. Does that mean when the primary sidelit zone of a garage encompasses the whole floor area? Is that possible? I've never heard of a skylit garage. In my experience, driving in a garage with open sides and full sun outside but no lighting inside is dangerous because of the contrast between the outside and the inside. It makes the interior of the garage appear overly dark and very hard to see pedestrians or cars without headlights.
1-50	• Table 5-2 calls for CFL lamps > 20w to dim continuously, but this table only references step dimming.
1-51	• Sentence should read: "Because the lighting power density is likely greater than 0.5 W/ square foot, the lighting must be multi-level and dimming ballasts will likely be used."
1-51	• Sentence should read: "In addition, this space must have demand response controls which also be controlled according to Table 130.1-A."
1-51	• Sentence should read: "**Warehouses** that prescriptively comply with the standards will have enough skylights so that the at least 75% of the floor area will be in the skylit daylight zone before accounting for partitions and other obstructions…"
1-55	• 1.5.2.C.d Incorrect font/size on the outline section header (d.)
1-55	• 1.5.2.C.d should read "If the space is conditioned, the glazing materials…"
1-55	• 1.5.2.C "In qualifying tall large buildings…" is redundant.
1-55	• 1.5.2.C should read "A number of simulation studies have identified that the optimal skylight area that balances heat gain, heat loss and lighting energy cost savings."
1-64	• 1.6.5.D.9.d.i should read "Infra-red sensors shall be equipped by the manufacturer, or fitted in the field by • the installer…"
1-68	• Formatting error with page header/margin
1-70	• Formatting error with page header/margin
1-71	• 1.7.2.A.1 "Error! Reference source not found."
1-72	• Formatting error with page header/margin
1-74	• Formatting error with page header/margin
1-76	• Formatting error with page header/margin
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1-92	• Formatting error with page header/margin
1-94	• Formatting error with page header/margin
1-94	• Graphic "Walls Qualifying for Wall Display": "Partition" is misspelled four times.
1-96	• Formatting error with page header/margin
1-96	• Example 1-24, Answer: "Error! Reference source not found."
1-98	• Formatting error with page header/margin
1-100	• Formatting error with page header/margin
1-102	• Formatting error with page header/margin

Thank you again for allowing us the opportunity to be involved and comment on the hard work that your team has put in thus far in furthering the Title 24 2013 code language.

Feel free to contact me directly should you have any questions regarding the submitted comments.

Regards,

Michael Lindsey, LEED® AP BD+C, Associate IES, Associate IALD
310.837.0929 main x327
310.736.6650 direct
646.785.4465 mobile
mlindsey@hlblighting.com