

California Energy Commission  
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California Energy Commission

**DOCKETED**

**15-BSTD-01**

**TN 76157**

**SEP 09 2015**

Re: 2016 Building Standards Update; 15-BSTD-01 Rulemaking Comments of Ecology Action on Lighting Alterations Language

September 9, 2015

Ecology Action appreciates the opportunity to comment on this proceeding. We'd like to address certain representations made by the big labor unions and their lighting consultant in their comments opposing the proposed 15-Day Language.

We'll get into specifics in a moment, but the first and largest mistake that these folks fall victim to is assuming that the mere act of writing restrictive provisions into Code causes them to actually happen in the existing built environment. That assumption is clearly and demonstrably in error. The burdensome and costly multilevel and controls requirements of the 2013 Code are failing spectacularly in the marketplace, which is exactly why CEC staff are proposing these changes. Ecology Action and dozens of other stakeholders have provided the Commission with a great deal of specific, hard data documenting that Code-triggering lighting retrofits are being rejected en masse by Small and Medium Business customers, major savings are being stranded and skilled workers are being lost. These assumed savings are simply not being achieved.

It is alleged by Big Labor that achieving 35% savings for older lighting systems in the hotel, retail and office space usage categories could still result in an LPD that is above the 2016 requirements. We find that concern to be unfounded based on our thorough review of actual projects of this type. We analyzed all Ecology Action installations in the current 2013 through 2015 program cycle and reviewed the pre-post wattage savings for these space types. The data set for these retrofits comprised 25,634 projects for building vintages from pre-1978 through 2001. The results were as follows:

Existing-to-New Wattage Savings

- Office: 74%
- Retail: 69%
- Hotel: 76%

The average pre-post wattage savings achieved overall was 70%. This obviously represents post-install LPDs that are far below the 2016 requirements. In addition, we examined our retrofits in warehouses, where the required LPD has not changed since 1998. At 0.6 W/sf, this would be expected to be a space type where 35% savings would be harder to achieve. The average pre-post wattage savings across 3,140 warehouse projects was 56%. And guess what? We achieved those levels of savings without any Code mandate requiring us to do so. Big Labor's argument is not based in fact. This is a non-issue.

Opponents also claim that CEC's 50% estimate of existing systems with multilevel and automatic shutoff controls is overstated. Ecology Action disagrees based on our experience serving thousands of retrofit customers annually. Most lighting systems we encounter have had upgrades performed within the last 10-15 years. About half of the businesses we retrofit already have some type of shutoff control installed, whether time clocks, occupancy sensors, timers or whatever. Furthermore, bi-level switching or alternate luminaire switching (i.e, checkerboarding) is very often used in existing buildings we encounter, especially offices, warehouses, bookstores, libraries, schools, and administrative areas of many other building types. CEC staff's estimates are reasonable and approximate actual field audit experience.

Big Labor is also concerned that removing the "per annum" provision from the fixture modification language is problematic. In reality, that provision itself is problematic because it is unenforceable. No one is tracking the number of fixture modifications over time, and even if that level of scrutiny were possible, no jurisdiction has either the capacity or interest in doing so. The example they use to illustrate this "problem" is laughable – do they seriously think a contractor would bring their crews back a dozen times over a year just to retrofit a single building, or that the customer would allow them to disrupt their business in that way? No. The reality is that retrofitters would approach that job as a Code-triggering project, achieve considerably more than 35% savings and install the new automatic shutoff controls as required by the 2016 Code.

Finally, we would like to emphasize that the proposed 35% savings threshold is not a cap on wattage reduction, it is a floor. Retrofitters typically save significantly more than 35% as we have already demonstrated. Setting the floor at 35% allows implementers the flexibility to achieve greater overall savings as technologies continue to evolve and transition. CFL to LED projects are an example of this.

Ecology Action believes the proposed language, while imperfect, will unquestionably save more energy than the failed 2013 regulations. It provides enough balance to enable the retrofit industry to return to health and once again deliver the energy savings that is critical to California's future. Ecology Action strongly urges the Commission to approve the proposed 15-Day Language as written.

Respectfully,

Gene Thomas

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