

DOCKETED

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Lutron comments from April 10, 2015 hearing on the Title 24 2013 Standard

Additional submitted attachment is included below.

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Vice President

April 30, 2015

Submitted via: <https://efiling.energy.ca.gov/Ecomment/Ecomment.aspx?docketnumber=15-MISC-02>

Mr. Andrew McAllister
Commissioner
California Energy Commission
1516 Ninth Street
Sacramento, California 95814

Re: Docket No. 15-MISC-02

Lutron Electronics Co., Inc. comments on the implementation of the 2013 Title 24 Part 6 building energy efficiency standards

Dear Commissioner McAllister,

Thank you for the opportunity to provide comments on the 2013 Title 24 Part 6 Standard. These comments are submitted on behalf of Lutron Electronics Co., Inc.

As you may know, Lutron was founded in 1961 and is headquartered in Coopersburg, Pennsylvania. From dimmers for the home, to lighting management systems for entire buildings, the company offers more than 17,000 energy-saving products, sold in more than 100 countries around the world. In the U.S. alone, Lutron products save an estimated 10 billion kWh of electricity, or approximately \$1 billion in utility costs per year. The company's early inventions— including the first solid-state dimmer invented by Lutron's founder, Joel Spira—are now at the Smithsonian's National Museum of American History in Washington, DC.

Please find our detailed comments below. We look forward to working with you further on this important project. Please contact Michael Jouaneh at 610-282-5350 or mjouaneh@lutron.com if you have questions or would like more information on these comments. Thanks again for your consideration.

Respectfully submitted,



Pekka Hakkarainen, PhD
Vice President
Lutron Electronics Co., Inc.

These comments are focused on lighting alterations portion of the standard. They were also expressed verbally at the April 10, 2015 public meeting:

1. **Don't backslide to pre-2005 Standard by removing lighting control requirements in alterations.** In 2005, all lighting alternations of 50% or more of luminaires had to comply with the control requirements (area control, daylight control, shutoff control, and multi-level lighting). Back then the cost of controls was significantly more and there was only wired options. Now controls are less costly. Also, nearly all the major lighting control manufacturers provide wireless solutions that are ideal for lighting alterations in existing buildings as they are significantly less expensive to install. Lastly, removal of lighting control requirements in alterations would put Title 24 well behind ASHRAE 90.1 and IECC.
2. **Share the analysis.** We urge the CEC to share the analysis that is the cause for potentially removing the control requirements in lighting alterations. Industry in particular needs to study it not only to make sure it is accurate but also so that industry can take corrective action to address any valid issues.
3. **Controls save significant energy cost effectively.** Please refer to the analysis Lutron submitted to the 2016 Standard docket (15-BSTD-01). Basically it shows the new lighting power density (LPD) of a lighting alteration would have to be 60% lower for occupancy sensing not to be cost effective and 25% lower for dimming not to be cost effective.
4. **Exceptions for installing controls should be based on LPD not existing lighting power.** Basing exceptions on existing lighting power is not enforceable. Once the old fixtures are removed an inspector can't verify the previous lighting load. They can, however, verify the new lighting load and they know what the LPD allowances are per the Standard. Furthermore, the exception from control requirements when the installed power is 20% lower than existing power is not appropriate. In many cases the lighting renovation may not even meet the allowed LPD for the space. If there is going to be an exception from adding controls based on existing lighting power reduction, then the threshold should be at least 50% lower than existing power. The 50% threshold is already feasible for many projects, will only become more so in the future, and has a better chance of meeting the LPD requirements for the space type.
5. **Current 2016 proposal encourages energy hogs to remain so.** A space with an LPD of 2.5 W/ft² needs to only go to 2.0 and comply without controls. Yet an already efficient 1.0 W/ft² space would have a hard time complying without controls. It should be the opposite. The energy hogs should have to install the controls, not the already efficient project.
6. **LED dimming is basically free.** Most LED fixtures are dimmable with no additional costs.

7. **Hold a Lighting Alterations Roundtable.** The Commission should discuss issues with all stakeholders in a dialogue where data, tools, and solutions can be shared and discussed. And questions can be asked and answered. This current hearing format is not conducive to this. So we urge the Commission to hold a roundtable on lighting alterations prior to making any drastic changes to the existing Standard.