

# Docket # 15-BSTD-01

2016 Building Standards Update, and hopefully also 2013 improvement

## 2017 – 2020 Title 24 Will Probably Become Obsolete

November 27, 2015

Greetings

### CLCATT

Before 2020, and maybe well before then, Certified Lighting Controls Acceptance Test Technician (CLCATT) will probably become unnecessary and obsolete.

So if CLCATT is kept, it will probably just result in extra costs without significant benefits.

This is because by then there is a very high probability of quite inexpensive and usually integral advanced controls, which will be able to learn and adapt, so installation will be simple and no commissioning will be necessary.

Before 2020, the Apples, Ciscos, Googles and Qualcomms of the world will probably become the main or some of the main lighting and controls companies, because they

- Have fast and smart chips
- Know how to handle big data
- Have billion dollar war chests, so can develop or buy any lighting – controls company they want to

Lighting will probably mimic the cell phone industry with free or inexpensive products and monthly service charges.

So scrap trying to push advanced controls now, which are expensive, often difficult to deal with, and usually not cost effective saving energy.

Let the free market decide, instead of trying to push something, before it is really ready.

As mentioned in previous letters, please contact Dr. Robert Karlicek.

### CALCTP

California Advanced Lighting Controls Training Program (CALCTP) will probably also become obsolete for the same reasons.

As advanced controls evolve in the next few years, training to install and commission them will not be necessary, because those controls will mainly be integral and will be able to adapt and learn on their own.

It is probably best to focus on energy efficiency now and wait for the next generation of inexpensive and easy to install advanced controls that does not require commissioning.

California Energy Commission

**DOCKETED**

**15-BSTD-01**

TN # 76401

NOV 16 2015

## **Human Centric Lighting**

As mentioned in several previous letters, if Title 24 does not allow the extra wattage and light output for the non-visual or biologic parts of the visual system, Title 24 will really become out of date.

If the CEC has been or not been getting information on this from Jim Benya and/or Deborah Burnett, the CEC should get information from experts, such as Steven Lockley, who has a PhD in neuroscience, and others in the Human Centric Lighting Society.

<http://humancentriclighting.org/>

LEDs Magazine will publish my letter to editor regarding Burnett's recent article.

<http://www.ledsmagazine.com/index.html>

## **General**

Lighting and controls are evolving too quickly for the CEC and its three-year Title 24 cycles.

If the CEC wants to keep doing Title 24s, even if they are no longer helpful for lighting retrofits, Title 24s should focus on lighting power densities, not mandating controls. Lighting professionals and end-customers will go with specific controls where and when they are cost effective.

What is very important is to allow sufficient light and wattage for the non-visual or biologic part of the visual system.

The free market, which is quite mature and keeps learning, is better than the CEC and its lighting consultant.

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