

## DOCKETED

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## **Three Year Cycles No Longer Work**

Dear Sirs and Madams

Three Year Cycles No Longer Work

When the CEC planned for the 2013 Title 24, it used mainly fluorescent to justify mandating controls and pushing dimming and automatic demand reduction (ADR). By the time that title 24 started, it was already an LED world and those controls, dimming and ADR were often no longer cost effective, but we have been shackled with that ever since.

Although lighting has evolved quickly so far, it should ramp up to near light speed by the time the 2016 Title 24 expires on December 31, 2019. Some of it has already started, like the current DLC premium qualification draft, which lists 130+ LPW for troffer and troffer kits and similar numbers for other products. A 130 LPW troffer or troffer can provide 1500 lumens, which is often quite good in offices with task lights, halls, restrooms, etc., consumes less than 12 watts, which is very difficult for controls to be cost effective. By end of 2019, LPWs should be close to 180, which with 1500 lumens will be about 8 watts, which will really make controls, dimming and ADR a total waste of money to save energy in most applications.

Even with considerably higher LPW within this time frame, energy saving financial returns will not be very good retrofitting fixtures with high performance fluorescent T8 lamp and ballast systems, so any additional costs with Title 24 permit process may kill those projects.

Since data is becoming more important than lighting, lighting may become free as described in this article.

<http://www.electricaltrends.com/2016/02/selling-lighting-or-selling-data.html>

Various storage system and other advancements may make ADR, even from electric car charging stations and addressable HVAC insignificant.

There will probably be significant advancements with lighting and controls by end of 2019 that most people will not expect.

Although the CEC has not accepted Human Centric Lighting yet even with the existing substantial evidence, the CEC will probably not be able to suppress its benefits with the upcoming research and case studies over the next couple of years.

Although the CEC totally screwed up the 2013 Title 24 and the 15 day language will not be close to being sufficient after almost two years shackling the lighting retrofit industry, hopefully at least the CEC will understand that three year cycles don't work any more.

With both lighting professionals and end customers becoming much more educated and experienced than in the past, lighting evolving so fast and the CEC accepting too much input from local and national controls lobbyists, the best solution is for the CEC to stop Title 24 or at least make it similar to how retrofits were generally done before July 1, 2014.

It is becoming a brave new world, and the CEC needs to accept that many old ways will no longer work.

Stan

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