

DOCKETED

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CEC, Please Get Out Of The Way

Dear Sirs and Madams

CEC, please get out of the way.

Over the years the CEC has often been considered a main reason why California is so efficient.

But let's examine that, focusing on lighting.

I would bet that much more energy has been saved from the lighting retrofit industry than from the CEC up to June 30, 2014 when Title 24 hardly impacted lighting retrofits. Since then, Title has decimated the lighting retrofit industry. Adopting the modified 15 day language will not be sufficient to make up for almost the last two years. If anybody can provide opposing evidence, please do.

Over my 27 years in lighting, I have retrofitted a good number of relatively new buildings, which met Title 24 new building requirements, but were not that efficient. Other retrofitters have also done this.

High electric rates and rebates for retrofits and new construction motivate people to be energy efficient in California.

Now that there are high electric rates and good rebates in New England, Massachusetts has overtaken California's efficiency, and other New England states are close behind.

Instead of giving very much credence about lighting retrofitting to Jim Benya, Doug Avery, IBEW, CALCTP, NEMA, NECA and others, the CEC should listen to real lighting retrofitters, who have substantial experience with small to large end customers that have little to substantial funding.

After I spoke for SDG&E on March 1 and at Strategies In Light on March 2, I started consulting for several customers that I specified lighting retrofits for 8 to 10 years ago, and due to the age of the ballasts they want to do re-retrofits. It will be a challenge for these retrofits to be cost effective for three reasons. First, the existing wattage and annual hours are quite low, mainly 24W and 48W in most troffers, which is 0.6 WSF or less, and only 3000 annual hours. Second the CEC wants to penalize customers that have done previous retrofits, because it probably will not be doable cutting wattage by 50% while providing sufficient light, so the standard and expensive version of Title 24 will be needed. Third is since the IBEW cancelled light fixture maintenance category last summer, these prevailing wage projects will need inside wireman wages, which in these counties with contractor market will cost the customers about \$150/hour, instead of about \$50/hour with the cancelled light fixture maintenance category. Without PG&E's Lighting Design Assistance trial program and up to \$195 rebate for LED troffers and troffer kit, these customers would probably not have proceeded.

So these end customers may decide to do nothing.

There are some reasons that the lighting retrofit industry has survived at all in California with the current Title 24. These include utilities not wanting to be code cops, various jurisdictions not dealing with Title 24 for lighting retrofits and various contractors avoiding Title 24.

Please, CEC, just get out of the way, and allow the free market, mainly lighting professionals and end customers, to achieve the most energy savings. Although the free market is nowhere close to being perfect it is way better than the CEC and Title 24.

The CEC pushed automatic demand response (ADR) for lighting in the existing Title 24. Now it is quite apparent that electric charging stations, addressable HVAC units and various storage systems are much better than lighting for ADR, because lighting can often be less than .3 WSF.

The free market knows when various controls from basic occupancy sensors to advanced controls are cost effective in specific projects. They know in many applications, such as specific private offices, elementary school classrooms and others, such as some open offices, warehouses and industrial areas, that occupancy sensors are not cost effective, because people do a very good job turning off lights when they leave and when sufficient daylight or the spaces are occupied the entire day until the time clock turns them off.

Now that the DesignLights Consortium (DLC) has approved LED troffers and troffer kits down to maximum 1500 out of fixture lumens, which can provide sufficient light in offices with good task lighting, halls, restrooms, etc., and the DLC proposed high performance listing is minimum 130 LPW, troffers or troffer kits can be less than 12W. If an occupancy sensor saves 16%, which is the CEC DEER number in offices, the annual savings at \$.15/KWH at 3000 hours before the sensor is installed is only \$0.86 per year.

By the time the 2016 Title 24 may end on December 31, 2019, LED troffers and troffer kits may have 175 LPW, so each 1500 lumen one may be less than 9W, so sensors will even save less energy. If there are restrictive energy codes, three year cycles are too long.

Also it has been proven that in many applications, adding occupancy sensors can increase annual hours of operation, because although people were very good at manually turning lights off before, they usually allow for the 10 – 15 minute automatic delay after sensors are installed. That time may add up to an extra month per year.

CEC, please publically state why you mandate controls in numerous real world applications that they are not cost effective.

If anybody from the CEC thinks they have good evidence that Title 24 has been saving more energy than the free market since July 1, 2014 or will save more after the modified 15 day language is implemented, please provide that information. If not, please go back to the way lighting retrofits were generally done before July 1, 2014 or with no Title 24 for lighting retrofits.

Lastly, more and more lighting retrofitters and end customers in California know that sufficient light for the non-visual or biologic part of the visual system is so important, and Europe is way ahead of the United States on this, but the CEC does not seem to get it.

Thank you, Stan

P.S. Regarding prevailing wage and union labor classifications

For those not already aware, there is concerted effort to develop an equivalent to light fixture maintenance labor category, which should really help both prevailing wage and union interior lighting retrofit projects. Now the inside wireman rate is usually about three times higher than the old light fixture maintenance category, which is killing projects.

P.S. Regarding certifying existing fixture information

It is my understanding that certain parties want to mandate that acceptance test technicians (ATTs) certify fixture

quantity, type and wattage and stating that contractors cannot be trusted. Lighting retrofit contractors have been doing this for decades, especially with customized rebates, based on energy savings over the first year. I am not aware that any utility or rebate provider has had significant problems with this over the long haul. If there is recent and substantial evidence, please provide it.

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