Docket No. 15-BSTD-01

February 20, 2015

Dear Sir or Madam

First of all, I would like to retract my previous statement “With the current Title 24, not only are lighting retrofit contractors struggling, but also many installers have lost their jobs. The CEC and Doug Avery and Jim Benya types should compensate them.” and replace it with “It is my professional opinion that it should be investigated if and how lighting companies and workers should be compensated due to the current Title 24 reducing their business, having to focus out of state, working less or being laid off.”

With little low hanging fruit left cost effective lighting retrofits are usually a challenge. In the past going from four F34T12 fluorescent lamps and two energy saving magnetic ballasts, which consumed about 144W to two 32W F32T8 fluorescent lamps and a high BF electronic ballast, which consumes about 72W, saved 72W, which was 50% and was quite cost effective. We can now reduce wattage another 50% by going with 36W LED or high performance fluorescent systems, but only 36 watts are saved, so the electric bill reduction is only half of the previous retrofit. Having to deal with the burden of the current Title 24 makes it even harder to get lighting retrofits sold and installed.

Hibays have a similar story. 1000W mercury vapor lamps with electronic ballast could be replaced one for one with 400W probe start MH lamps and magnetic ballasts very cost effectively. Later those 400W MH systems could be cost effectively replaced with 220W fluorescent T8 or T5HO lamps and electronic ballasts. But now it is a challenge replacing the fluorescent hibays with 110W LED hibays, because though the wattage is cut in half, only about 110 watts are saved, and LED hibays are relatively expensive and labor costs are usually quite substantial at these heights. In addition to the typical Title 24 burden, the partial on or partial off requirements in warehouses, really makes it tough for these retrofits to be cost effective. And with 110W LED hibays, occupancy sensors are not cost effective in many projects, even though they may be mandated.

Although some people praise lighting to be good with automatic demand response, the LED or high performance incumbent technology is typically such low wattage that it is not very good for automatic demand response. Addressable car charges and HVAC units are so much better for that than high performance lighting products. For example, one addressable five ton HVAC unit at 1KW/ton can shed the equivalent of 100,000 square feet of lighting, which may have 1250 troffers. One ton HVAC handles about 400 square feet.

Lastly, somebody please tell me what was so wrong with Title 24 before the 2013 version for lighting retrofits, that the CEC and others had to make the 2013 version so much different. The old one was easy to understand and work with. If the existing fixtures provided bi-level lighting, such as inboard/outboard lamp switching, the retrofitted lighting at least needed to be checker-boarded. If more than 50% of fixtures were replaced, that previous Title 24 permit was required, which did not happen very often. Lighting retrofit contractors, ESCOs and end-customers would probably get down to the same watts per square foot now even if there were no light power density requirements, because the less wattage used, the more energy savings and better financial return. Please let the market decide what is cost effective for lighting retrofits.

You can email or call me 9 AM or later Pacific time, which is 7 AM or later here in Hawaii.

Thanks for your consideration.

Stan Walerczyk

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