

October 27, 2014
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814-5512

California Energy Commission

DOCKETED

13-CCEJA-01

TN 73908

OCT 27 2014

RE: Docket # 13-CCEJA-1, Comments on Proposition 39 Guidelines

Title 24 & Proposition 39 for School Lighting Retrofits

Dear Sir or Madam,

My firm, FESS Energy, Inc., provides energy management contracting and consulting services to California businesses. We are currently contracted with Southern California Edison (SCE) to manage their Small Business Direct Install Program. Through this program we have installed energy efficiency retrofits, including efficient lighting, in over 22,000 small businesses. Our work alone in this program (there are two other implementers) saves California businesses \$17,6000,000 every year in energy expenses and saves approximately 117,000 megawatt hours of electricity and the associated power plant emissions.

We are pleased to be able to offer comments and to propose modifications to the program guidelines as they relate to Title 24 lighting requirements. Title 24 has essentially shut down the energy efficient lighting retrofit business in California. Large and small lighting retrofitters alike are laying off crews as the confusion, complications and expense of T-24 lighting compliance are daunting.

Existing facilities are not wired in a manner that allows dimming controls and day-light harvesting to be incorporated cost effectively. Trying to implement a T-24 compliant project in a retrofit situation can double the cost of an energy efficient retrofit. When businesses see the cost of complying they are either cancelling the project or doing a more cost effective (and in some cases a more efficient) non-T-24 compliant project without pulling a permit.

I also question the savings assumptions attributed to T-24 since most lighting fixtures have been de-lamped already using reflectors, lower wattage T-8 lamps (28W or 25W), and low ballast factor ballasts. The result is that the majority of lighting systems (not all, there are still T-12 systems and other inefficient systems in the market) are efficient systems which generate proper lighting levels. T-24 requires dimming fluorescent lamps and ballasts or new LED dimming fixtures (retrofit kits are not allowed). The T-24 compliant dimming T-8 lamps are 32W verses the existing prominently used 28 W T-8's. The dimming fluorescent ballasts actually use more energy per lumen produced than the instant start ballasts we are forced to remove. Unless the T-24 dimming fixture is actually dimmed there are no savings in which case the T-24 compliant design would actually increase lighting power use. Since most offices and schools have been de-lamped, these spaces are not over lit, and any dimming would produce insufficient lighting levels and hence they would never be dimmed. If lighting levels are already appropriate, then there will be no energy savings from this mandated, very expensive retrofit!

Daylight harvesting does offer some savings opportunities where existing circuits allow this control but only of course in a small sub-set of fixtures that have proximity to sufficient daylight through-out the day. Complying with T-24 in these areas is very expensive in a retrofit application as they require re-wiring of circuits and use of expensive wired and/or wireless photo-controls, relays, and dimming power packs.

The frustrating part of the T-24 code is that by the CPUC definitions there are no energy savings in lighting retrofits unless they exceed T-24 since code is the baseline for calculating savings. In reality there are very significant savings in performing non-T-24 compliant retrofits -replacing T-12's, (yes there

are T-12 still in place), re-lamping to lower wattage T-8's, de-lamping, screw-in CF's and LED lamps replacing incandescent lamps, LED exit signs (we see thousands of incandescent exit signs still in use), etc. Yet, if there are no savings as the CPUC defines it, then how can rebates or utility energy efficiencies programs pass TRC tests or RIM tests? These rebate programs do in fact promote energy conservation, they do save California rate payers on their utility bills, they do save significant amounts of energy which reduces the loads on constrained grids, and they are lowering our dependence on non-renewable fossil fuels.

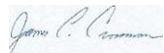
A Public Goods Charge is being collected from rate payers to fund rebate and conservation programs such as Direct Install. If rebates and programs are cancelled because they don't save any energy per CPUC definitions, then conservation in the State suffers since presumably small businesses cannot receive rebates unless they complete a Title 24 assessment and pay increased project costs associated with compliance.

Technical papers written and posted on the CPUC website state that rebates are essential in motivating businesses to undertake energy projects to reduce consumption. One such reports states that 92% of business owners would not participate in an energy project without a rebate due to the high upfront cost.

The other issue is how T-24 relates to Proposition 39 program. We believe that Title 24 and the objectives of Proposition 39 conflict with one another. Schools are prepared to undertake lighting retrofits but the requirements of Title 24 are causing projects to be stopped dead because: no one is really sure if they need to comply; know who signs off; who to get pre-approval from; know who commissions the systems; and of course the biggest obstacle is the added cost. Nowhere in the Proposition 39 language is Title 24 mentioned! Someone had to have seen this coming.

Thank you for your consideration of these issue and concerns. I would welcome discussing further the impact of applying T-24 lighting requirements in a retrofit situation.

Most sincerely,



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