

August 4, 2015

SUBJECT:

California Energy Commission

DOCKETED

15-BSTD-01

TN # 76

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Docket Number 15-BSTD-01 – Adoption of 15-Day Language for 2016 BEES

The cost analysis for Acceptance Testing of occupancy sensors, by a certified acceptance testing technician, is not accurate according to my experience. I am also not aware of anyone in my industry that was surveyed about these costs.

Because the certified acceptance testing program was not implemented until the 2013 Building Energy Efficiency Standards went into effect, on July 1, 2014, any information taken from the 2014 DEER predates anyone's experience with the certified acceptance testing program. Furthermore, implementation of this program was initiated at a much later date than July 1, 2014, after which it has been implemented very slowly. Therefore, it is not appropriate for the certified acceptance program to consider information from this database. Note that "2014 DEER" is the name of this file on the Energy Commission website.

The Title 24 Nonresidential Compliance Manual is not a legal document in that it was not adopted pursuant to the Administrative Procedures Act. According to language in the Manual, it states that the purpose of the manual is the following:

"This manual is designed to help building owners, architects, engineers, designers; energy consultants, builders, enforcement agencies, contractors and installers, and manufacturers comply with and enforce California Building Energy Efficiency Standards for nonresidential buildings. The manual is written as both a reference and an instructional guide and can be helpful for anyone that is directly or indirectly involved in the design and construction of energy efficient nonresidential buildings."

"This manual supplements and explains California Building Energy Efficiency Standards, which is the main document that describes the requirements that all covered buildings must comply with; these manuals explain those requirements in simpler terms but it does not replace or supersede them. Readers should have a copy of the Standards to refer to while reading this manual."

Any assumptions made in the Manual are assumed to be for examples only.

Also, the Nonresidential Compliance Manual has never been presented or vetted as a cost analysis to support the adoption of the Building Energy Efficiency Standards. Has the Nonresidential Compliance Manual ever gone through a peer review by experienced CLCATs? What makes the Nonresidential Compliance Manual an authoritative citation?

Even so, the proposed occupancy sensor cost analysis cites Page 987 of the Nonresidential Compliance Manual. However, this page does not show any of the factors that are being used in the cost analysis. This page addresses the organizational structure and training and certification procedures required for ACCTPs.

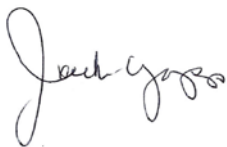
Therefore, no evidence has been provided as to where the factors used in this cost analysis came from. If there were extrapolated, such extrapolation should be available for public review. Were they simply arbitrary?

Another outstanding issue is that the Energy Commission has not provided a cost effectiveness analysis for acceptance testing for daylighting controls, even though acceptance testing is also required for daylighting controls in lighting alterations.

Following are additional questions and comments about the proposed cost effectiveness analysis:

- The billing rate for an electrician in many California cities is more than \$80/hour.
- Testing of occupancy sensors cannot be performed when there are other construction workers in the same area, hence, much of this testing must be done during off hours such as nights and weekends when the pay rate is in the 'overtime' category.
- What does "(internal)" mean for labor cost?
- The cost of an audit inspection would be more than \$300.
- The time it takes to perform a thorough 'plans review' before going to the site needs to be included.
- Many CLCATs charge a minimum fee of \$1,000, therefore, estimated fees of less than \$1,000 are unrealistic.
- What is the quantity of sensors below which the cost of testing is not cost justified?
- A similar analysis is needed for testing of daylight harvesting.

Sincerely,



Senior Vice President

