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Submitted via email: docket@energy.ca.gov

Mr. Andrew McAllister
Commissioner
California Energy Commission
1516 Ninth Street
Sacramento, California 95814

California Energy Commission

DOCKETED

15-BSTD-01

TN # 75567

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Proposed Revisions to the California Building Energy Efficiency Standards California Code of Regulations, Title 24, Part 6 and Appendices; 45-Day Language

Dear Commissioner McAllister,

Acuity Brands appreciates the opportunity to provide comments regarding the Title 24 Building Energy Code. Acuity Brands has a long history of working with the Commission and contractors to promote the adoption of the state building code to promote high efficiency lighting installations. We look forward to discussing our comments and working collaboratively on revisions necessary to ensure an effective building code.

Acuity Brands is the leading manufacturer of luminaries and lighting controls in North America. We operate facilities throughout California under the Peerless, Hydrel, Lighting Control & Design and Sunoptics product brands. In addition, our western region manufacturing and distribution center is located in Ontario, CA. The California building code has a direct impact on our investment of nearly 400 California based employees.

These comments are a supplement to the comments submitted on 3/17/2015. They include additional comments on the proposed residential lighting requirements based on discussions with the contractors responsible for the residential code proposals. The comments also include input related to the proposed relaxation of commercial lighting renovations coderequirements.

Please contact Cheryl or Tanya to discuss our comments in more detail.

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1) Section 150.0k Residential Lighting

- a. We continue to have questions about the analysis performed to evaluate the cost effectiveness of the proposed residential code.
 - i. The database used to evaluate the cost of JA8 compliant products has relied on the existing California Appliance Database. However, there has not been any data provided to determine if the product listings sufficiently represent integrated LED luminaires since many these type of products were not required to meet the 2013 JA8 requirements if an LED board is designed to be replaced. It is questionable whether the products used in the 2016 cost analysis actually meet all proposed requirements in the 2016 JA8. Furthermore, the appliance database does not require the submission of price information and there has not been any discussion regarding how the price information has been obtained.
 - ii. The Appliance Database does not include the various “quality” attributes in the proposed JA8 requirements. The attributes of the most significant cost concern include the color attributes (R9, Duv and CCT), flicker and dimming.
 - iii. The description of the cost analysis in past workshops has focused on the cost associated with changes to the proposed JA8 requirements. However, high efficacy lighting was not required in all areas of a residence to meet the 2013 code. We request that the CEC provide the details of the cost analysis comparing a 2013 code compliant residence to a 2016 code compliant residence. The 2013 baseline should include a percentage of products that are not high efficacy and an analysis based on this condition is likely to result in dramatically different outcomes for the cost effectiveness of the 2016 code requirements.

We are anxious to support a more aggressive code to help California achieve the necessary energy reductions for residential applications. However, the multitude of quality attributes have not been validated relative to consumer preference and potentially increase costs and energy consumption for attributes that residential owners do not value. Because studies show that monetary impact is the highest consumer preference, the cost increases associated with JA8 attributes could impede the market penetration of integrated LED luminaires.

We request that the CEC respond to each of these cost considerations for integrated LED luminaires and provide detailed information regarding the determination of quality attributes, thresholds, price sensitivity, cost analysis, data and assumptions. We also challenge the CEC to reconsider the mandate for integrated LED luminaires to meet all the JA8 requirements for every application in a residence. An approach that allows a percentage of products to be exempt from the quality or “gold standard” attributes such as dimming, Duv, CCT and R9 while maintaining high energy performance will be more aligned with consumer demand for cost effective solutions and will promote a greater impact toward the California energy reduction goals.

- b. We continue to raise concerns that the proposed code is technology specific and has been designed to provide preference for traditional high efficacy solutions or screw based LED lamps over integrated LED luminaires. We don’t believe this is the intended goal of the CEC. We appreciate the interest in ensuring quality for screw based LED lamps because the light source can be installed and moved to any location within the residence. However

integrated LED luminaires are designed to ensure optimal thermal and optical performance and cannot be relocated like a lamp.

In most progressive codes, there is a focus on requirements that encourage the preferred energy solution, while making it harder to comply with less desirable solutions. With the 2016 residential code proposal, the CEC has done just the opposite. Promising technologies such as solid state lighting are held to a stringent standard, while technologies such as CFL and other luminaires with traditional light sources are not held to any quality standard. In fact they are not even held to a minimum energy efficiency threshold.

We recommend that the CEC consider relaxing the quality attributes mandated for integrated LED luminaires to continue to promote the market adoption of these high efficiency and cost effective lighting solutions. We also recommend that the quality attributes should be relaxed for OLED luminaires to promote continued R&D and cost reductions.

2) Section 141.0 – Lighting Alterations

The proposed revisions for areas with lighting modifications in sections 141.0I, 140.0J and 140.0K do not appear to keep California on a track to achieve the energy reduction goals by relaxing requirements for renovations. During the 2013 standards development process, there were numerous stakeholder meetings conducted prior to the proceedings for the rulemaking. These discussions were very collaborative and focused on strategies to achieve the energy reduction goals. At that time, there was universal agreement that California cannot meet the energy goals without addressing energy use in existing buildings, and that controllable lighting is a critical capability to reach the goals. A primary goal of this work was to establish a built environment in California that responds to occupant needs as well as develop an infrastructure to address demand management.

We appreciate that lighting renovations and lighting alterations became more complex with the 2013 code. However we have invested in training designers and contractors about lighting and control strategies to meet the 2013 code. We have worked directly with retailers who own and operate hundreds of stores across the state to upgrade their lighting and meet the 2013 requirements with an attractive financial return. Businesses have successfully adapted the renovation solutions to the 2013 code. There are various ESCOs, energy contractors and electrical contractors who have responded to the goal of the 2013 code and have modified the manner in which they approach lighting renovations.

Acuity Brands, as well as numerous other manufacturers, have made investments in lighting equipment and controls specifically designed to upgrade existing lighting installations. These renovation solutions include complete luminaire replacements with embedded controls as well as “kits” to modify luminaires to improve the optical and energy performance without disturbing the installed housing. Our daylighting solutions consist of high performance skylights designed to offset electric lighting and are especially effective in industrial and big box retail installations. We have introduced a broad offering of wireless control solutions that eliminate the need to modify existing wiring. Many of these solutions are developed or manufactured by over 350 California based employees at Acuity operations. Relaxing the 2016 requirements will have a negative impact on our ability to recuperate our training and product development investment.

We recommend that the CEC reevaluate the negative implications of the relaxed requirements relative to the state energy goals. CEC should consult with a broad range of businesses who focus on lighting renovations to fully understand the market conditions.

Financial implications of the proposed requirements on manufacturer's investment in R&D, training and product development to meet the 2013 requirements must be considered.

If it is determined that there is a need to exempt certain installations, they should be small areas and achieve significantly lower power density relative to the code power allowance if controls will be exempted.

We also encourage the CEC to host a collaborate workshop with all stakeholders to identify roadblocks to lighting renovations, provide training regarding technology solutions and consider the development of tools to help building owners evaluate the financial opportunities with solutions that reduce their operating costs as well as improve the quality and productivity of their facilities. Acuity Brands would welcome the opportunity to assist and engage in this type of workshop.