

DOCKETED

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International WELL Building Institute Comments on the Express Terms for the 2019 California Building Energy Efficiency Standards, California Code of Regulations, Title 24, Part 6

Additional submitted attachment is included below.

Mr. Payam Bozorgchami
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814-5512

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International WELL Building Institute Comments on the Express Terms for the 2019 California Building Energy Efficiency Standards, California Code of Regulations, Title 24, Part 6

Dear Mr. Bozorgchami,

The International WELL Building Institute (IWBI) is grateful for the opportunity to comment on the Express Terms for the 2019 California Building Energy Efficiency Standards California Code of Regulations, Title 24, Part 6. IWBI is a public benefit corporation whose mission is to improve human health and well-being in buildings and communities across the world through its WELL Building Standard (WELL). We are continually looking for opportunities to add to WELL and are currently analyzing impacts of artificial light on health and wellness of building occupants.

With the adoption of LED lighting technology and associated controls, one of the of the main health concerns has been the presence of flicker. Flicker can have substantial impact on headaches and thus on occupant productivity and wellness. The lack of standardization in the lighting industry for reporting flicker has been a point of concern for us. We are considering adding a requirement for minimum flicker thresholds in a future version of WELL that is partly based on the flicker reporting requirements in the 2016 California Building Energy Efficiency Standards California Code of Regulations. We are troubled that with the decrease in stringency of reporting requirements in the 2019 California Building Energy Efficiency Standards California Code of Regulations, project teams and lighting designers will not have access to data to make an informed product choice for positive health impact in the space.

Previously, JA10 reporting requirement in JA8 have required the reporting of amplitude modulation for 40 Hz, 90 Hz, 200 Hz, 400 Hz, and 1000 Hz cut-off frequencies. These values are comparable to the values recommended in IEEE PAR 1789 Standard, “Recommended Practices for Modulating Current in High-Brightness LEDs for Mitigating Health Risks to Viewers” for no significant physiological impact. The Draft Express Terms indicate that manufacturers will be allowed a choice to report from the JA10 collected data or from NEMA 77. This will allow products with lower flicker frequency (thus higher chances of negative health impact in the form of headaches) to be placed in the same league as products meeting the JA10 requirements. Lack of knowledge about the intricacies of the two standards may lead to project teams using products that perform poorly with low frequencies.

We would like to request you to keep the requirements for flicker in the 2016 California Building Energy Efficiency Standards California Code of Regulations or consider increasing the stringency. Keeping the requirements for flicker would also influence world-wide market transformation in the lighting industry where there is a need for standardization for flicker.

Thank you for your consideration of IWBI's comments.

Sincerely,

Gayathri Unnikrishnan
Director, Standard Development