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Comment Received From: Brian Hamilton
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Comments on Existing Building Efficiency Standards -- Stack Lighting

Dear Commissioner McAllister,

We appreciate the opportunity to comment on the implementation and development of Existing Building Energy Efficiency Standards. We strongly support the California Energy Commissionâ€™s goals and efforts to improve the efficiency of existing buildings and help carry out AB 758 and the Governorâ€™s initiative to double the energy efficiency in existing buildings by 2030.

Attached are comments from Stack Lighting, a California-based company that has developed a state-of-the-art, commercially available autonomous daylight harvesting lighting with occupancy detection technology that improves energy efficiency by 38% on average as compared to conventional LEDs.

Thank you,

Brian Hamilton
Head of Business and Corporate Development
Stack Lighting

Additional submitted attachment is included below.

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August 10, 2015

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

Re: Docket No. 15-IEPR-05, Existing Building Energy Efficiency Standards

Dear Commissioner McAllister,

We appreciate the opportunity to comment on the implementation and development of Existing Building Energy Efficiency Standards. We strongly support the California Energy Commission's goals and efforts to improve the efficiency of existing buildings and help carry out AB 758 and the Governor's initiative to double the energy efficiency in existing buildings by 2030.

Stack Lighting is a California-based company that has developed a state-of-the-art, commercially available autonomous daylight harvesting lighting with occupancy detection technology that improves energy efficiency by 38% on average as compared to conventional LEDs. Unlike conventional LED pin design, the autonomous bulbs automatically respond to changes in their environment by adjusting brightness and color temperature without user intervention, significantly improving energy efficiency without needing to retrofit the light fixture. The autonomous, screw-based bulbs provide an accessible and affordable technology that allows for wide distribution and delivers immediate energy savings.

There still remains in excess of approximately 500,000,000 Edison screw light sockets lighting California with incandescent bulbs - even when assuming that every lamp socket installed subsequent to the 2008 Title 20 standard is using LED technology[1]. By replacing these incandescent bulbs with autonomous screw-based LED bulbs that harvest daylight, California's annual electricity demand would be reduced by 19,246 gigawatt-hours – approximately 7% of California's electricity demand in 2014[2]. A commensurate reduction in carbon dioxide emissions of nearly 3.2 million metric tons is also realized – an amount equivalent to removing 664,000 autos and passenger trucks from California's highways[3].

To achieve these energy and greenhouse gas emission savings from California's existing buildings in the near-term, it is important to maximize accessibility and ease of compliance for all homeowner, renters, and businesses to deploy state-of-the-art energy efficiency technologies. Autonomous LED bulbs using daylight harvesting technology provide immediate energy savings without needing to retrofit the light fixture, thereby reducing the cost to consumers. The cost to install a single recessed LED lighting ranges from $184 - $334, as compared to the

[1] California Energy Commission; Final Staff Report - Voluntary California Quality Light Emitting Diode (LED) Lamp Specification, Publication CEC-400-2012-016-SF, December 2012.
[2] Sources and methodology available upon request
[3] Sources and methodology available upon request

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$35 cost of our autonomous LED light-harvesting bulb. In addition, the increased energy efficiency by replacing incandescent bulbs with autonomous screw-based LED bulbs that harvest daylight will save California electricity customers $3 billion each year[4].

During the recent IEPR Commissioner workshop, the Energy Commission noted that achieving California's energy and climate goals requires radical improvement in the energy performance of existing buildings. We believe that ensuring and encouraging the availability and use of autonomous light harvesting LED bulbs in conventional Edison screw-in light sockets will help provide the needed "radical improvement" in the energy performance of existing buildings. As the Commission moves to develop and implement voluntary and mandatory approaches to energy efficiency improvements in existing buildings, we respectfully request that every opportunity be taken to ensure the deployment of this latest improvement in lighting technology.

We thank you for the opportunity to submit comments on the implementation and development of Existing Building Energy Efficiency Standards and appreciate your support in accelerating the deployment of innovative technologies that improve energy efficiency in existing buildings.

Sincerely,

Brian Hamilton
Head of Business and Corporate Development
Stack Lighting

cc:
Charles Smith
Eurlyne Geiszler
Maziar Shirakh

[4] Sources and methodology available up on request