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Submitted via email: docket@energy.ca.gov

California Energy Commission Docket Uni, MS-4 Re: Docket No. 19-DECARB-01 1516 Ninth Street Sacramento, California 95814

Building Decarbonization Assessment - Docket # 19-DECARB-01

Dear Commissioner McAllister,

Acuity Brands appreciates the opportunity to provide comments regarding the California Building Decarbonization Assessment. Acuity Brands has a long history of working with the Commission and contractors to promote the adoption strategies to help the state reach its climate goals and provide lighting and control solutions that save consumers money through reduced energy costs.

Acuity Brands, Inc. is a market-leading industrial technology company. We design, manufacture, and bring to market innovative products and services that make the world more brilliant, productive, and connected including building management systems, lighting, lighting controls, and location-aware applications. We operate facilities throughout California under the a•light, Peerless, Hydrel, Lighting Control & Design and Sunoptics product brands. In addition, our western region manufacturing and distribution center is in Ontario, CA. We employ over 500 associates across the state. Acuity Brands is also an active member of the California Energy Alliance.

Acuity Brands supports actions that promote energy efficient and resilient buildings. Our lighting solutions are well positioned to achieve California's goals, while providing additional benefits such as improved lighting quality, demand flexibility, integration of renewable resources such as utilizing daylighting and providing safe, healthy and secure building environments.

As noted in the Draft Staff Report¹, lighting accounts for 35% of electricity consumption in commercial buildings. A large percentage of commercial buildings were constructed over 20 years ago and as noted in Figure 38 of the Draft Report, about 75% of California's residential buildings were built before 1990. Many of these buildings have implemented minimal or no energy upgrades.

Lighting solutions present a unique opportunity to support California's climate goals

- LED lighting can typically reduce the energy of 50-60%² when replacing traditional fluorescent or HID technologies in commercial buildings or homes.
- When lighting controls (such as occupancy/vacancy sensors or daylight sensors) are utilized, the energy reduction is typically 75-85%².

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¹ CEC-400-2021-005-SD

² Acuity Brands – <u>Look Up Look Around – Renovation Application Guide</u>

- Building Energy Management systems can further reduce the energy, but also provide the benefit of demand response to support grid resiliency. These systems can be adjusted for load shifting as well as demand response to promote flexibility and energy savings.
- Daylighting systems in commercial buildings, such as "direct solar" (skylights), take advantage
 of a low-cost renewable energy source and can reduce energy by 25%. Skylights are among the
 most effective technologies used to deliver light for visual tasks. These systems are especially
 effective in warehouses, manufacturing and big box retail.

While Title 24 promotes advanced lighting system technologies, it only addresses new construction or major renovations. The Commission should consider methods to address commercial buildings and homes that have not been retrofitted lighting in the last 5 years. Lighting renovations are among the least disruptive and shortest paybacks of building renovation technologies.

Advanced lighting systems offer significant opportunities in the pathways to decarbonizing buildings, specifically with the energy efficiency and demand flexibility.

Please feel free to contact me to discuss our comments in more detail.

Tanya Hernandez, PE, LC

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Vice President, Government & Industry Relations

770-860-2793

Tanya.Hernandez@AcuityBrands.com