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Comments from the Illuminating Engineering Society

Additional submitted attachment is included below.



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October 6th, 2020

Mr. Peter Strait
Supervisor, Standards Development, Building Standards Office
California Energy Commission
1516 9th Street, MS 37
Sacramento, CA 95814

Re: Docket #: 19-BSTD-03, Project Title: 2022 Energy Code Pre-Rulemaking

Submitted Electronically October 6, 2020

Dear Peter,

First, let me thank you again for the time that you and your staff have invested thus far in getting to know today's Illuminating Engineering Society (IES), our standards, our members, and our collective interest in California energy regulations. It has been my pleasure to get to know you and other CEC staff, and I look forward to our continuing collaboration. On behalf of more than 725 members of the IES residing in California, and more than 8,500 IES members in 65 countries worldwide, many of whom work on California projects, I am pleased to enter the following comments to docket 19-BSTD-03 for the Commission's careful consideration.

Established in 1906, the IES is the recognized technical and educational authority on illumination. For over 100 years its objective has been to communicate information on all aspects of good lighting practice to its members, to the lighting community, and to consumers through a variety of programs, publications, and services. The strength of the IES is its diversified membership: engineers, architects, designers, educators, students, contractors, distributors, utility personnel, manufacturers, and scientists, all contributing to the mission of the Society: *to improve the lighted environment by bringing together those with lighting knowledge and by translating that knowledge into actions that benefit the public.*

As you are already aware, the IES is a 501(c)(3) non-profit professional society, and an accredited Standards Developing Organization (SDO) under American National Standards Institute (ANSI) approved procedures. The Society publishes recommended practices on a

variety of applications, design guides, technical memoranda, and publications on energy management and lighting measurement, nearly all of which follow the ANSI standards development process. The IES appreciates the Commission's normative references to ANSI/IES standards in Title 24 and remains available to assist with their implementation.

We thank you for the opportunity to comment on the 2022 California Code of Regulations Title 24 Part 6 code development cycle. Many IES members view the current Part 6 revision process relating to lighting as flawed and in need of restructuring, in order to support the art and science of lighting practice in California for years and generations to come. Based on a January meeting of IES members in San Francisco, and based on my personal discussions with many IES members working on projects in California, I am writing you today to convey viewpoints that are commonly held by IES members whose work is impacted by Title 24 Part 6.

Lighting power densities are too restrictive, and stifle creativity

Over the course of decades, Part 6 limits on lighting power densities (LPDs) have become increasingly restrictive, to the point that lighting *specifiers* (i.e. lighting designers, engineers, architects) believe they no longer have the creative freedom that drew them to their practice in the first place. Members report with increasing frequency the need to advise clients that their creative requests cannot and therefore will not be met because Part 6 regulations will not allow for them. Such limitations threaten quality lighting design writ large in California, while also threatening the livelihoods of members forced to push back on client design goals. Clients set high expectations for the skill and creativity of lighting specifiers, and do not hesitate to look elsewhere when, from their perspective, specifiers fail to deliver. Many IES members, in this respect, find Part 6 LPD limitations not just restrictive, but punitive.

Cost effectiveness assertions are often highly questionable

IES members in California have on many occasions noted that CEC cost effectiveness assertions *do not at all* align with their understanding of and experience in the California lighting market. In many instances, IES members can only envision a measure being cost effective if certain market actors' interests are not factored into cost effectiveness analyses. As an example, a vacancy sensor with a \$25 manufacturer list price may in and of itself appear to be cost effective to the CEC. However, with the inclusion of distribution markups, contractor markups, sales taxes and commissioning, the sensor's true cost may be closer to \$75, creating a payback period that no reasonable person would consider cost effective. This is not a new issue, but it remains a constant problem with lighting proposal CASE reports.

The CASE report system is broken

The following statement is from a [CEC webpage](#) accessed October 5, 2020.

“The CEC expects the IOUs and POU’s to engage building industry stakeholders in developing those initiatives so they will be vetted with affected stakeholders before the utilities propose potential revisions to the Energy Code. Visit Title24Stakeholders.com or email info@Title24Stakeholders.com to participate in the development.”

California regulations are thought to be developed and disseminated by California state government agencies; in truth, the current CASE report system embraced by the CEC, the IOUs and the POU’s has created what appears to many of our members as a parallel, commercially-focused regulatory proposal system providing considerable advantage to California’s well-funded electric utilities. As per the above, the CASE team is expected to engage stakeholders, but it must be understood that engaging selected stakeholders cannot possibly account for the impact on the much larger group of “*affected stakeholders*”.

A great many IES members work under a structure of billable hours which cannot economically accommodate the time necessary to review and comment on lengthy regulatory documentation. To wit, a lighting design firm with a staff of four may never have the temporal or financial resources necessary to review the entirety of the October 2nd, 2020 multifamily restructuring draft CASE [report](#) (406 pages), or the September 25th nonresidential indoor lighting final CASE [report](#) (370 pages), or the September 8th nonresidential outdoor sources final CASE [report](#) (242 pages), or the September 8th nonresidential daylighting final CASE [report](#) (132 pages). That firm and its clients, however, may be among the most negatively impacted by the proposals in these 1,150 docketed pages. CASE reports are enormous documents developed over several years by dozens of people with millions of dollars in private funding. Our members do not believe it is reasonable to expect California’s *affected* lighting stakeholders to review such voluminous proposals, especially in only a few weeks’ time (as is often the case), to determine the impact such proposals may have on lighting practice broadly, and on individual members and their work. Indeed, historically, this has been to the IOUs’ advantage, and to our members’ detriment.

Creating yet more confusion, the CEC webpage above states “*Interested parties should be aware the... (IOUs) and some... (POUs) conduct the statewide Codes and Standards Enhancement programs through ratepayer funds.*” To the uninitiated, this can be interpreted to mean that the utilities run the Title 24 Part 6 revision process. The remainder of the Pre-Rulemaking language on this page directs users to the above dot-com resources, which focus on the utilities’ proposals. Yet, when they arrive at title24stakeholders.com, they are greeted with “*This website is a resource for stakeholders to voice their opinion about proposed Title 24, Part 6 code changes, get information about how to become involved in the code change process, and see past measure proposals.*” It is plain to see how affected stakeholders with little time to spare can be easily confused about where to direct their attention, when to look, and how best to spend their limited time. Directing stakeholders to dot-com websites and dot-com email addresses creates confusion as to where online the Title 24 Part 6 code development cycle process is hosted, who is in charge of the regulatory process, and the official timeline for the process.

Revisions occur too frequently

It is a common refrain among our members that the code revision cycle of three years is itself a barrier to practitioners' understanding of Part 6, their ability to implement it, their ability to explain it to their clients, and their ability to develop and propose improvements. Many members have articulated frustration with how quickly revisions are proposed on the heels of the previous revision's effective date, indicating that it takes them typically 3 years simply to catch up with the latest revisions, and to develop a true understanding of their impacts on lighting practice. California would be better served by a code revision process that allows more time for experts to get engaged.

Micromanaging milliwatts

Through the joint efforts of the lighting industry, the US DOE, the IES, ASHRAE and other organizations, and aided by Title 24 and other energy codes, lighting in new buildings now consumes 90 to 95 percent less energy than buildings complying with Title 24-1979. Currently proposed changes are to reduce the remaining 5% by 10%, or in other words, by 1% compared to a 1979 compliant building. Many of the proposed changes may not have any effect at all because of the extent of current code limits. It's a fair question whether the resources invested in the micromanaging of lighting energy use might not be better invested in other ways to achieve the general goals set by the California Legislature.

IES California Regulations Committee

Committed to working long term to address these concerns and others, the IES is currently seating a new committee which will dedicate itself to such work. In the spirit of the former IES Regional Energy Committee with which CEC staff worked very closely for decades, the new IES California Regulations Committee will be co-chaired by two Fellows of our Society and will include members from all six IES California Sections (Bay Area, Fresno, Santa Barbara, Los Angeles, Orange County, and San Diego) to ensure representation from the whole state. Three members are Fellows of the International Association of Lighting Designers. One IES member not located in California but involved in California projects will also serve on the committee, to lend an outside perspective.

Through this committee and more, the IES will, in the coming years, be carefully documenting examples of how the current code is placing restrictions on proper lighting design, particularly through implementation of excessively stringent lighting power density requirements. We will also work to carefully document our concerns regarding the CEC's cost effectiveness analyses. We also hope to work with the CEC and the IOUs/POUs to create clarity around the entirety of the Title 24 Part 6 revision process.

I personally know you and your staff to be genuinely interested in how code revisions affect the California lighting market, and lighting practitioners. I am confident also in your interest in finding ways to fix these ongoing problems, and to lend clarity to a confusing yet important code revision process.

Respectfully,

A handwritten signature in black ink, appearing to read 'Alex Baker', with a long horizontal flourish extending to the right.

Alex Baker
Manager of Government Affairs & Public Policy
Illuminating Engineering Society