

**DOCKETED**

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*Comment Received From: Charles Knuffke for Legrand/Wattstopper  
Submitted On: 11/17/2023  
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**WattstopperLegrand comments on 2025 Express Terms**

*Additional submitted attachment is included below.*

November 17, 2023

California Energy Commission  
Commissioner Andrew McAllister  
1516 Ninth Street  
Sacramento, CA 95814-5512

**RE: [Docket No. 22-BSTD-01](#) – 2025 Title 24 Part 6 Express Terms**

Legrand, especially its California based Wattstopper lighting control brand, appreciates this opportunity to submit comments on the recently published Express Terms draft for the 2025 Title 24 Standard. We gratefully acknowledge the significant work put forward by all proposal teams, commission staff, commission consultants and other contributors to improve the energy efficiency and applicability of the Title 24 lighting and lighting control related sections.

Given the limited amount of time allowed to review the Express Terms language, at this time we'll use the same format that we've used in the past where we'll focus on the key code sections and either applaud the changes in the code, or where needed we would like to raise specific concerns and provide suggestions.

There is a general comment we would like to make however, which is to applaud the overall improvement in readability that has occurred in much of the lighting and lighting control code sections. It appears that the CEC took to heart many of the recommendations published in the CLTC's "[2025 Title 24 Lighting Language Cleanup Initiative](#)" which sought to clarify and simplify the code language. We're reminded of the old troupe about the weather: "Everyone complains about it, but nobody ever does anything." In this case, the CLTC did something about it, pulling together panels of people from the industry to review the individual lighting and lighting control code sections, and based on their feedback – which often consisted of much back and forth - offer recommendations to improve the Energy Code. We specifically participated in as many of the sessions as possible and are extremely pleased to see that some recommendations we've voiced in the past have found their way into the 2025 Title 24 Code language because of this mammoth undertaking. We truly appreciated the work of the CLTC and the people who made this Cleanup Initiative happen, and hope that other groups might look at doing similar exemplary work on other sections of the code.

We'll follow the code and offer comments sequentially based on the Section Numbers:

### **Section 100.1 – Definitions**

**Multilevel Lighting Control** enables the level of lighting to be adjusted upward and downward. This is too simple a definition, as even a single pole wall switch would meet this requirement. Would suggest the definition instead read "Multilevel Lighting Control – a manual control device that enables the level of lighting to be adjusted upward and downward across multiple levels.

### **Section 110.12 – Demand Response**

Regarding the proposed changes in the 2025 Code, would offer the following comments.

#### 110.12(a)2 – Demand responsive controls

*All demand responsive controls shall be capable of communicating to the VEN using Wi-Fi, ZigBee, BACnet, Ethernet, hard-wiring, or any other bi-directional communication protocol.*

Applaud this change, as the word protocol is more specific and clearer than the previously used pathway.

#### 110.12(e) – Demand Responsive Controlled Receptacles

*Demand Responsive Controlled Receptacles. In spaces required to have controlled receptacles per Section 130.5(d) or 160.6(d) and where demand-responsive lighting controls are installed, the controlled receptacles shall be capable of automatically turning off all connected loads in response to a demand response signal.*

Extremely pleased to see that the requirement for DR Controlled Receptacles has been modified such that it only applies to spaces with DR Lighting Controls, which was the basis for the California Energy Alliance's Code Improvement submittal. Requiring DR for controllable receptacles in building spaces that didn't already have DR Lighting Controls was a significant additional expense to new projects in California, and not what was recommended by the CEA.

So significant is this change that that once this code language is adopted by the CEC, we believe they should make consider using their Blueprints document to make clear that this new interpretation can be used for buildings going to permit before the Title 24 2025 code takes effect.

*During a demand response event, the demand responsive controlled receptacles shall not be capable of being overridden to turn ON by automatic shut-off controls or any manual controls.*

While there's enormous good to the change in the above first sentence in this section, we think there's significant overreach to the second sentence. The CEC's charge should be to ensure that buildings are DR ready, but it is completely up to the owner of the building to determine the lighting and receptacle circuits and/or switch-legs that should be reduced or turned off during DR events. There is nothing in the DR lighting section stating that owners can't use a sequence of operation that would allow occupants in some specific spaces to override their DR enabled lighting, so we do not understand why it would be required for DR receptacle control. Additionally disagree with the phrase "or any manual controls" – while we're thinking the intent was to exclude devices called out in Section 130.1(a) from turning the loads back on, there are often other manual controls on the devices themselves – for instance relays in electrical panels that may have a manual control to be used by the facility engineer for testing or programming purposed. This is one of these cases where not allowing loads to be turned back on could cause owners of

the facility to rather decide to not including them at all in a DR event. Our strong suggestion at this point is to delete the entire sentence, also if that's not acceptable use "*During a demand response event, the demand responsive controlled receptacles shall be capable of being excluded from overrides by automatic shut-off controls and manual controls used to meet Section 130.1(a).*"

### **Section 130.1(a) – Manual Controls**

There's much to be applauded in this section – the deletion of the laundry list of spaces in Exemption 1 to Section 130.1(a)2 by simply rewording that section and putting decision making power in the hands of the project designers when it comes to any space on the project.

However, we do think that the intro paragraph in Section 130.1(a) could be improved as there are many spaces that are combined (open office, kitchenette, corridor) and not necessarily considered separately enclosed spaces. Instead of using:

**(a) Manual controls.** *Each enclosed space shall provide lighting controls that allow the lighting in that space to be manually turned on and off.*

Suggest changing to:

**(a) Manual controls.** *Every indoor space shall provide lighting controls that allow the lighting in that space to be manually turned on and off.*

The word "enclosed" in "enclosed space" should also be removed from 130.1(a)2, 130.1(d), and any other code section where the word "space" by itself would suffice.

One other paragraph is confusing and should be edited.

*Exception to Section 130.1(a)2: The controls for the egress lighting are not accessible to unauthorized personnel.*

Not exactly sure what "The controls" means in the above. If it means the UL 1008 or UL 924 egress control hardware, then it should be called out as that. If it means the manual area control device, there's an issue because Egress lighting is often combined with other lighting in a space – a linear fixture with both normal and emergency power feeds – and that fixture might be combined with other lights and controlled by a single dimmer. If this is the case, we would suggest using:

*Exception to Section 130.1(a)2: When normal power has failed, egress lighting should not be controllable by local manual area devices.*

### **Section 130.1(c) – Shut-Off Controls**

Might be solely a matter of taste but we think that the language in the previous 2022 Energy Code Sections 130.1(c)6-7 was clearer than the re-written language covering these items in the 2025 Energy Code's Express Terms document, specifically when dealing with Parking Garages.

Having gone back and forth several times as to what was required in Parking area – automatic off, no automatic off, and most recently Partial Off - seemed like Partial Off was a reasonable way to handle this unique space.

We did want to say that we very much appreciate that Section 130.1(c)6D now calls out that the individual occupancy sensor zones in office areas greater than 600 sqft needs to be shown on the

plans. This will make it easier for those installing the hardware and setting it up, as well as Building Inspectors and the Facility Engineers to understanding how the space is to operate.

### **Section 130.1(d) – Daylight Responsive Controls**

We certainly applaud the changes in this section’s language regarding the wattage triggers for primary, secondary, and skylit daylight zones. Calling each zone out individually with its trigger wattage is more understandable than the previous language in the 2025 Energy Code.

We believe the new language in 130.1(d)iv regarding Parking Garage areas does not make it clear whether, as in the previous 2025 Energy Code, the Primary and Secondary zones should be treated as a single zone, or should be treated as two separate zones, for the purpose of daylighting control. This is because the language referring to the combined primary and secondary zones doesn’t appear until the following 130.1(d)1 paragraph. We suggest adding that combined primary and secondary zone language here as well.

We are concerned with the language in 130.1(d)2C which seeks to “break” general lighting luminaires longer than 8 feet into segments of 8 feet or less. We understand that when dealing with tape lighting, that this language allows segments used for General Lighting that are inside a Primary or Secondary zones to be treated separately but are concerned how this language would apply to linear fixtures – which to our knowledge had not had an issue following the previous daylighting code. Consider an example with a 10 foot fixture, this could mandate that while the greater fixture length is 8 feet, the remaining 2 feet must be treated separately. Not sure that the ROI for the required division of the fixture and additional wiring and components was proven. Believe this wording should be left as it was previously in the code, with a new rule added that specifically covers dealing with tape lighting or other fixtures that might be of concern.

### **Section 130.1(f) – Control Interactions**

We wanted to say we are very appreciative that this entire section has been removed, as the only item in it that provided additional information – whether daylighting controls can be overridden temporarily – has been placed in the daylighting section of the code.

### **Remaining Energy Code Sections**

Rather than call out each section individually, we wanted to just mention a few key thoughts:

- We do not understand why PAFs can only apply to General Lighting (per 140.6(a)2). In the case of Demand Response, for instance, we believe it would be valuable to offer a multiplier on other types of lighting should they be set up to participate in Demand Response. Consider Display and Decorative Lighting in a large retail establishment. We especially do not understand why the Demand Response PAF Type of Area column now states “If DR controls are required of Section 110.12(c), this PAF is not available for any lighting in the project.” Why would the CEC not want to incentivize projects that have areas with low wattage/sqft general lighting, or general lighting in rooms less than 100 sqft, to include the general lighting in these spaces in their DR program?
- We’re not lighting designers, but we’re surprised by the removal of the Tailored Method from the proposed 2025 Energy Code. We’re concerned that many Lighting Designers who take advantage of this method might not be aware of this proposed change, and will not have time to make their case that this method of meeting the indoor lighting power requirements should stay in the code.

- We're very appreciative that Table 140.7-B now includes information letting readers know when a Specific Application may be used as additional allowance for applicable illuminated hardscape area on the site.
- We're still of the opinion that High-rise Multifamily dwellings do not need to have their own code sections.

If there is any discussion point in this letter where the CEC finds our concerns or suggestions unclear, we hope that you'll consider contacting us for clarifications. We've certainly enjoyed the opportunities we've had in the past to discuss the Energy Code language by phone, email, and in person, and hope to continue that positive relationship for many years to come.

Respectfully Submitted,

A handwritten signature in black ink that reads 'C. Knuffke'.

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