



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

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Energy Code Technical Advisory Group Meeting Review Notes for June 4, 2021

TAG Members Present: Kjell Anderson, Chair; *Michael Baranick; Erik Bedell, *Christopher Boroughs; CJ Brockway; Michael Fowler; Gary Heikkinen; Scott Henderson; Luke Howard; Duane Jonlin; *Elizabeth Joyce; *Jon Lange; Mike McGivern; Allan Montpellier; *Andrew Pultorak; Irina Rasputnis; David Reddy; Lisa Rosenow; *Poppy Storm; Gavin Tenold; Amy Wheelless

TAG Members Absent: Martin Connor, Patrick Hayes, Chris Holliday, Erik Olon, Shaun Vig

Visitors Present: Caroline Traube, Corey Wilker, Diana Burk, Andi Burnham, Shaun Darragh, Max Greenheck, Mike Kennedy, Jeanette McKaugue, Leigh Mingledorff, Michael Myer, Dave Nehren, Kurt Nielsen, Daniel Salinas, Levi Snow, Louis Starr, Aaron Tanner, Aaron Whitlatch, Chris Wolgamott

Staff: Krista Braaksma

* indicates an alternate member

Agenda Items	TAG Actions
1. Welcome and Introductions	<p>Meeting called to order at 8:30 a.m. Kjell Anderson welcomed everyone and roll was called.</p> <p>Kjell began the meeting with a brief outline of the rules of the meeting—using Zoom reactions to raise hands to speak or ask questions or use other icons to note agreement; removing reactions after they have been acknowledged; mute while not speaking. To avoid an Open Public Meetings Act violation, TAG members should never use reply all or send out a group email to all TAG members.</p> <p>The proposals are still in the process of being logged and prepared for posting. Staff will notify the TAG when they are available.</p> <p>Once the TAG has reviewed all of the submitted proposals, a report will be sent to the Mechanical, Ventilation and Energy Codes (MVE) Committee. The MVE Committee will make changes and then send their recommendations to the Building Code Council. The Council will then publish the draft and open the public comment period. After two public hearings, the Council will vote on the final code that will become the 2021 commercial energy code, which goes into effect July 1, 2023.</p>

	<p>At any point the TAG may be asked by the Council to provide input.</p> <p>The Council has not yet officially referred the proposals, so the TAG cannot vote on any proposals today, but can review them and ask questions or suggest revisions.</p> <p>There are some legislative mandates for the energy code. One is to achieve a 70 percent energy reduction over the 2006 code by 2030. The full information on the progress towards this goal can be found in the 2018 Report to the Legislature. The other legislative mandate is for fossil fuel reduction—to be offset by 2030 and 100 percent renewable by 2045.</p>
2. Review and Approve Agenda	The agenda was approved as written. It was noted the TAG would start with the review of NBI's proposal for plant lighting efficacy.
3. Review and Approve meeting notes from March 26, 2021	The meeting summary was approved as written.
4. Initial Review of Lighting Code Change Proposals	
21-GP1-98	<p>In Sean Denniston's absence, Diana Burk introduced this proposal from New Buildings Institute to establish efficacy for plant lighting indoors and in greenhouses. This efficacy can be met with double-ended high pressure sodium or LED options. The TAG debated the exception and if the threshold could be lowered to 10 kW—equivalent to about 200-250 square feet of growing space. Concern was also expressed that some of these products work for marijuana growing but may not work for other settings with taller, vine-type plants. There is also a need to correlate this requirement with other code sections that currently exempt plant lighting.</p> <p>The proponent was asked to bring back a revised proposal to address the TAG concerns.</p>
21-GP1-76	The proponent for this change was not available. CJ Brockway said this was discussed by a group of lighting designers running in to challenges with space types defined on plans that may serve many different uses with different lighting needs. The TAG expressed some concern over the language and the proposal was tabled until the next lighting review meeting.
21-GP1-124	Mike Kennedy and Duane Jonlin both discussed their similar proposals dealing with luminaire-level lighting controls (LLLC). The TAG discussed the difference in control areas, why LLLC is given preference over other network control options, and drawbacks with using LLLC as a design option. The TAG formed a workgroup to come back with options. Irina Rasputnis will coordinate, with CJ Brockway, Mike Kennedy, Duane Jonlin, Andrew Pultorak and Levi Snow participating.
21-GP1-178	

<u>21-GP1-126</u>	Mike Kennedy introduced his proposal to move LLLC to its own section, with added language for high end trim requirements. The TAG expressed some concern with the high end trim language and suggested Mike make some changes. The relocation was generally accepted by the TAG.
<u>21-GP1-92</u>	Shaun Darragh discussed his proposal on deleting the digital timer switch exception to occupant sensor controls. This is rarely used any longer and presents some difficulties in certain space designs. The TAG generally approved this proposal.
<u>21-GP1-026</u>	Levi Snow spoke to his proposal for daylight harvesting. Rather than being required by the number of fixtures, this sets a wattage requirement. Mike Myer noted that ASHRAE changed the baseline to 75 watts for the 2022 version of 90.1. Duane Jonlin noted that item 2 should specify that it applies combined primary and secondary sidelit daylight zones. A workgroup, to include Duane Jonlin, Mike Kennedy, and Mike Myer, was formed to assist the proponent to review and adjust the wattages.
<u>21-GP1-93</u>	Shaun Darragh introduced his proposal to reinstate the list of applicable spaces under occupant sensor controls. This list had been removed and portions relocated to other code sections during the review of the integrated draft. It has caused some confusion with the list appearing after the exception in the control function subsection. There was some concern expressed about the deletion of the subsection citation, as well as some correlation issues. The proponent was asked to bring back a revised version.
<u>21-GP1-009</u>	Mike McGivern spoke to his proposal on revisions regarding residential lighting requirements under Additional lighting controls. This would eliminate confusion and require dwelling units to comply with both Section C405.1.1 and C405.2.4.1. It was agreed that this was a good cleanup of the integrated draft.
<u>21-GP1-199</u>	Michael Myer introduced his proposal for removing the term “nonvisual applications such as” from item r of the additional lighting controls section. He felt it could be confused with the use of circadian lighting. The TAG expressed concern about limiting it to only plant growth and food warming. There may be other applications to which this would apply. It was suggested that a new sentence could be added that this did not apply to circadian lighting. The proponent agreed to return with a revision.
<u>21-GP1-125</u>	The two proposals from Mike Kennedy and Mike Myer were discussed together. Mike Kennedy said he would like to keep the original mounting height of 24 feet for his proposal, as the triggers with the higher mounting height can be problematic. The TAG agreed with Mike Myer that there needed to be something to guide the user back to item 1 if item 2 did not apply. It was suggested that Mike Kennedy’s proposal move forward with the edit of keeping the 24 foot height and swapping items 1 and 2, making “Luminaires serving outdoor parking...” item 1 and “Be controlled so that...” item 2.
<u>21-GP1-202</u>	

<u>21-GP1-127</u>	<p>Mike Kennedy introduced his proposal revising lighting requirements for parking garages, providing language from 90.1 to reducing lighting and removing redundant language on occupant sensor controls.</p> <p>The TAG generally supported the proposal.</p>
<u>21-GP1-94</u>	<p>CJ Brockway spoke to her proposal to remove the footnotes for additional lighting for display and ornamentation in the space-by-space LPA table and include a 0.5 W/ft² allowance in Section C405.2.2.1.1, and also add a provision allowing additional lighting power for tunable color circadian lighting. The TAG had some concerns that this allowed too much additional allowance. There was also some concern over the tunable lighting and if there were instances when both colorations were at 100 percent power. A workgroup was suggested to work on the additional power allowance portion and some additional research was requested on the tunable lighting portion.</p>
<u>21-GP1-144</u>	<p>In Dan Salinas' absence, CJ Brockway introduced this proposal to require a standard for lighting in unfinished spaces. There were a number of concerns expressed by the TAG, including the effect on Section C407 and the limitation to just the space-by-space method. A workgroup (CJ, Aaron, Lisa and Dan) was formed to come up with a revision.</p>
21-GP1-200	<p>This proposal was submitted with the title of "Footprint" and a description of amending Section C405.2.9 to add SI units and change the term from footprint to gross floor area but the change submitted was the same as that in 21-GP1-204.</p>
<u>21-GP1-201</u>	<p>Michael Myer spoke to his proposal to reduce the watts per linear foot of track lighting. There was concern that this limitation would not work for some decorative track lighting or track installed in taller ceiling heights. The TAG did not come to consensus on this proposal.</p>
<u>21-GP1-197</u>	<p>Michael Myer spoke to this proposal cleaning up the footnotes to the LPA table, removing the reserved items. It also corrects the SI conversion. There was some discussion at the TAG that the conversion was still not correct, and also needed some additional correlation changes with the other lighting table.</p>
<u>21-GP1-203</u>	<p>Michael Myer noted this proposal was also just correcting the SI conversion. There was general agreement by the TAG.</p>
<u>21-GP1-204</u>	<p>This was another Michael Myer proposal reducing the threshold for exterior lighting efficacy requirements. It also removed two of the exceptions—one that was redundant with the base language and one for solar powered lighting. It was felt that the solar powered exception should remain, but refer to "Solar powered luminaires" rather than "Solar powered lamps." With that change, there was general consensus.</p>
<u>21-GP1-205</u>	<p>Michael Myer submitted this proposal to remove exit lights from the list of exempt exterior lighting, citing that they are not used in exterior lighting applications. After being provided with instances where they were used, the proponent withdrew the proposal.</p>

21-GP1-198	Michael Myer spoke to his proposal reducing the allowances in the exterior lighting table based on California requirements, providing about a 40 percent reduction across the board. The values have not been adjusted since 2016, and most of the categories were changed from linear foot to square foot allowances. The TAG was in general agreement with the proposal, with the correction of a typo under Walkways less than 10 feet wide in Zone 4.
21-GP1-123	As this proposal was very similar, Mike Kennedy withdrew this proposal in favor of 180.
21-GP1-180	Duane Jonlin and Mike Kennedy both based their proposals on current requirements in the Seattle code. The proposals lowered the threshold for replacement lighting needing to meet the lighting power allowance. Duane liked the additional sentence in Mike's proposal and it was added to his proposal. There was some concern that this may have a negative impact on retrofit projects, but it was noted that this reduction was championed at ASHRAE by Puget Sound Energy. The TAG was generally in agreement with the proposal.
21-GP1-210	Aaron Whitlatch spoke to his proposal adjusting the reduced lighting options in C406. The current integrated draft language does not reflect the updates in the lighting section. There was some concern about the availability of products that could meet the 72 lumens per watt requirement. There was no agreement on this proposal.
5. Meeting Schedule	The next meeting will be next Friday, June 11, at 8:30am. In the interest of time, Kjell and Krista will set a tentative schedule for the upcoming TAG meetings.
6. Other Business	None.
7. Adjourn	The meeting was adjourned at 2:00 p.m.