



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

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Energy Code Technical Advisory Group Meeting Review Notes for July 9, 2021

TAG Members Present: Kjell Anderson, Chair; Michael Baranick; *Christopher Boroughs; CJ Brockway; Michael Fowler; Patrick Hayes; Gary Heikkinen; Scott Henderson; Luke Howard; Duane Jonlin; *Elizabeth Joyce; Mike McGivern; Allan Montpellier; *^vHenry Odum; Erik Olnon; *Andrew Pultorak; Irina Rasputnis; David Reddy; *Poppy Storm; Gavin Tenold; Shaun Vig; Amy Wheelless

TAG Members Absent: Erik Bedell, Martin Connor, Chris Holliday, Lisa Rosenow

Visitors Present: Representative Alex Ybarra, Jay Arnold, Caroline Traube, Julie Banerjee, Austin Bonnes, Christine Brewer, Casey Brown, Charlie Brown, Scott Campbell, Rand Conger, Michael Curtright, Shaun Darragh, Sean Denniston, Kevin Duell, Paul Duffy, Lisa Espinosa, John Frankel, Dave Greenheck, Chelsea Guenette, Chris Hawes, Jonathan Heller, Scott Henderson, Ken Horsfall, Adam Hutchinson, Janet Kelly, Mike Kennedy, Dan Kirschner, Jonny Kocher, Billy Kodosky, Kate Kulinski-Howe, Eric Lacey, Duane Lewellen, Chris Little, Tom Mergatroyd, Michael Myer, Nick O'Neil, Robby Oylear, David Park, Scott Peterson, Stan Price, Bart Ransom, Alexander Ratcliff, Mark Rehley, Kat Rosenbaum, Anthony Schoen, Daniel Silva, Kirsten Smith, Tonia Sorrell-Neal, Alyn Spector, Brandon Stock, Shilpa Surana, Aaron Tanner, Kelly Thomas, Eric Vander Mey

Staff: Krista Braaksma, Stephanie Feuchter

* indicates an alternate member. *^v indicates a voting alternate

Agenda Items	TAG Actions
1. Welcome and Introductions	Meeting called to order at 8:30 a.m. Kjell Anderson welcomed everyone and roll was called. Kjell went over 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; and be respectful of one another.
2. Review and Approve Agenda	The agenda was approved as modified: 21-GP1-165 and 21-GP1-188 under Item 7 will be heard together; the minutes of the June 25 meeting were not available to be reviewed.
3. Review and Approve meeting notes from June 25, 2021	The meeting notes were not available for review.

4. Revisit of Lighting Proposals	
21-GP1-092	<p>Proponent: Shaun Darragh, Lighting Design Lab Subject: C405.2.1, Exception 4, Timer switches</p> <p>MOTION: Duane Jonlin moved to recommend approval as submitted. Mike Fowler seconded the motion. Motion carried.</p>
21-GP1-127	<p>Proponent: Mike Kennedy Subject: C405.2.1.4, C405.2.8, Parking garage lighting</p> <p>MOTION: Mike Fowler moved to recommend approval as submitted. Duane Jonlin seconded the motion. Motion carried.</p>
21-GP1-237	<p>Proponent: Lisa Rosenow, Evergreen Technology Subject: General lighting updates</p> <p>MOTION: Duane Jonlin moved to recommend approval as submitted. CJ Brockway seconded the motion. Motion carried</p>
21-GP1-009	<p>Proponent: Mike McGivern, City of Kirkland Subject: C405.2.6, Residential lighting/luminaires</p> <p>MOTION: Duane Jonlin moved to recommend approval as submitted. CJ Brockway seconded the motion. Motion carried</p>
21-GP1-204	<p>Proponent: Michael Myer, PNNL Subject: C405.5.1, Exterior building grounds lighting</p> <p>MOTION: Duane Jonlin moved to recommend approval as modified. Mike Fowler seconded the motion. The motion carried.</p>
21-GP1-198	<p>Proponent: Michael Myer, PNNL Subject: C405.5.3. Exterior lighting</p> <p>Patrick Hayes asked asked how the reduction was derived. Michael Myers responded that they were taking into account a 25 to 35 percent efficiency gain in LED technology coupled with new data that shows less depreciation over time. The numbers were also scaled in reference to Zone 3, the most commonly used zone. Mike Kennedy added that this was derived from the work being done for Title 24, although these values are slightly higher.</p> <p>MOTION: Duane Jonlin moved to recommend approval as modified. Mike McGivern seconded the motion. The motion carried.</p>
21-GP1-202	<p>Proponent: Michael Myer, PNNL Subject: .C405.2.7.3, Parking occupancy/lighting setback</p> <p>The proponent withdrew this proposal in favor of 125 with the modifications.</p>
21-GP1-125	<p>Proponent: Mike Kennedy Subject: C405.2.7.3, Parking occupancy/lighting setback</p>

	<p>MOTION: CJ Brockway moved to recommend approval as modified. Duane Jonlin seconded the motion. Motion carried</p>
21-GP1-197	<p>Proponent: Michael Myer, PNNL Subject: Table C405.4.2.2, LPA Table footnote cleanup</p> <p>CJ Brockway felt that footnote b should be retained on guest room. The TAG debated whether the IBC definition for “Guestroom” should be added, and if the spelling should reflect the IBC definition, or possibly changed to sleeping unit. General consensus was to retain guest room but globally change it to guestroom for consistency.</p> <p>MOTION: CJ Brockway moved to recommend approval as modified, retaining footnote b for guestroom. Duane Jonlin seconded the motion. Motion carried</p>
21-GP1-203	<p>Proponent: Michael Myer, PNNL Subject: C405.4.2.2, Space by space</p> <p>MOTION: Mike Fowler moved to recommend approval as submitted. CJ Brockway seconded the motion. The motion carried.</p>
21-GP1-076	<p>Proponent: Heli Ojamaa, Blanca Lighting Subject: C405.2, Interior lighting allowance</p> <p>The TAG questioned why the change was being made in the building area method since the code requires space-by-space to be used when there is unfinished space. There were also objections to the non-enforceable language used.</p> <p>MOTION: CJ Brockway moved to recommend approval as modified. Mike Fowler seconded the motion. The motion carried.</p>
21-GP1-124 21-GP1-178 21-GP1-126	<p>Proponent: Mike Kennedy (124/126), Duane Jonlin (178) Subject: C405.2, LLLC</p> <p>Mike Kennedy introduced a modification combining these three proposals. It also adds a section on high end trim per the TAG discussion last month. The TAG discussed a number of language issues, and whether the subsections of C405.7.2 should include an allowance for 8 fixtures to be controlled together. That language was retained in the LLLC section but removed from the NLC section.</p> <p>MOTION: Mike Fowler moved to recommend approval as modified. Mike McGivern seconded the motion. The motion carried.</p>
21-GP1-093	<p>Proponent: Shaun Darragh, Lighting Design Lab Subject: C405.2.1, Exception 4, Timer switches</p> <p>Shaun Darragh provided a revision to his proposal, trying to keep it consistent with the national codes and clean up the existing language. Duane Jonlin suggested a further modification to provide the information in the form of a table.</p>

	<p>MOTION: Duane Jonlin moved to recommend approval as modified, including his modification and noting that it may need to be revisited. Mike Fowler seconded the motion. Motion carried.</p> <p>Mike Kennedy volunteered to develop a sentence at the end of the table to cover any occupant sensor controls for space types not listed.</p>
21-GP1-026	<p>Proponent: Levi Snow, JC Wright Lighting Subject: C405.2.6, Daylight harvesting</p> <p>MOTION: Mike McGivern moved to recommend approval as modified. Mike Fowler seconded the motion. The motion carried</p>
21-GP1-199	<p>Proponent: Michael Myer, PNNL Subject: C405.2.4, Non-visual lighting</p> <p>MOTION: Mike McGivern moved to recommend approval as modified. Mike Fowler seconded the motion. The motion carried</p>
21-GP1-098	<p>Proponent: Sean Denniston, NBI Subject: C405.3, Plant light efficacy</p> <p>MOTION: Duane Jonlin moved to recommend approval as modified. Mike Fowler seconded the motion. The motion carried.</p>
21-GP1-201	<p>Proponent: Michael Myer, PNNL Subject: C405.4.1, Connected power for track lighting</p> <p>After TAG discussion, the TAG determined that the current wattage rating for track should be retained.</p> <p>MOTION: Duane Jonlin moved to recommend disapproval. CJ Brockway seconded the motion. The motion carried.</p>
21-GP1-094	<p>Proponent: CJ Brockway, Sparklab Lighting Design Subject: Table C405.4.2(2), Ornamental/exhibit lighting</p> <p>CJ Brockway introduced a modified proposal that was discussed.</p> <p>There was concern that this change would double the LPA for some spaces and the allowances should be lower.</p> <p>The TAG tabled the discussion to allow a workgroup consisting of CJ, Irina Rasputnis, Chris Wolgamott, Mike Myer, Andrew Pultorak, Shaun Durragh, Mike Kennedy and Shilpa Surana to work on another revision.</p>
21-GP1-144	<p>Proponent: Dan Salinas, Salinas Lighting Consult Subject: C405.4.2, Lighting in unfinished spaces</p> <p>MOTION: Mike McGivern moved to send the proposal back to the proponent. Henry Odum seconded the motion. The motion was rescinded.</p> <p>Duane Jonlin proposed a revision of the wording, along with adding the footnote text to Section C405.4.2.2.</p>

	<p>MOTION: Duane Jonlin recommend approval as modified, with the caveat that it may later be further modified. David Reddy seconded the motion. The motion carried with one opposing vote..</p>
21-GP1-180	<p>Proponent: Duane Jonlin, City of Seattle Subject: C503.6, Reduce threshold for LPA in existing buildings</p> <p>The TAG reviewed the proposal with the modifications suggested by the TAG on June 4, adding in the sentence from proposal 123. CJ Brockway asked if a cost analysis had been done on this proposal. Duane replied that a detailed analysis was not done, since there were no control requirements, just a lower lighting power allowance.</p> <p>MOTION: Duane Jonlin moved to recommend approval as modified. Mike McGivern seconded the motion. The motion carried.</p>
5. 10 am Key Issue Discussion: Heat Pump Water Heaters	
21-GP1-136	<p>Proponent: Jonny Kocher, RMI Subject: Heat pump water heating PowerPoint Presentation Modified Proposal</p> <p>Jonny Kocher said he worked with Jonathan Heller from Ecotope on the amendment to align his proposal with the NEEA standard.</p> <p>TAG discussion included costs and the impact to small business and smaller projects, cost, effectiveness in Eastern Washington, impact on construction/structural design, the elimination of gas options and any possible advancements/innovations in gas water heating, definitions that are no longer used in the modified proposal, insufficient recovery rate and the fact that the cited standard is not yet finalized.</p> <p>It was noted the allowance for 24 kW plus 0.1 kW per square foot is a typo. It should be 24 kW plus 0.1 W per square foot. TAG consensus was to move that allowance from C404.2.2, Supplemental water heaters to C404.2.1, Service water heating system type, as an exception. It was noted that roughly translates to four electric water heaters.</p> <p>Mark Rehley pointed out the NEEA standard also supports gas heat pump water heaters and he would like to see that reflected in this proposal.</p> <p>A workgroup was established to review the proposal to address technical and other concerns and look at including limitations. The volunteers were: Jonny Kocher, Chris Boroughs, Gary Heikkinen, Duane Jonlin, David Reddy, Shaun Vig, Eric Vander Mey, Henry Odum, Chris Little, Emma Johnson, Michael Curtright, Scott Peterson, Mark Rehley, Jonathan Heller, Sean Denniston, and Kevin Duell.</p>
7. Review of Definitions and Envelope Proposals	
21-GP1-148	<p>Proponent: Lisa Rosenow, Evergreen Technology Subject: Definition updates</p>

	<p>The TAG reviewed the modifications suggested at the June 11 meeting.</p> <p>MOTION: Henry Odum moved to recommend approval as modified. Patrick Hayes seconded the motion. Motion carried</p>
21-GP1-224	<p>Proponent: Aaron Whitlatch, Rushing Subject: Definition updates</p> <p>MOTION: Duane Jonlin moved to recommend approval as modified. Mike McGivern seconded the motion. Motion carried</p>
21-GP1-225	<p>Proponent: Aaron Whitlatch, Rushing Subject: Low energy buildings</p> <p>MOTION: Duane Jonlin moved to recommend approval as submitted. Amy Wheelless seconded the motion. Motion carried</p>
21-GP1-158	<p>Proponent: Duane Jonlin, City of Seattle Subject: C402.1.1.2, Semi-heated buildings</p> <p>The TAG reviewed the proposal with the modifications submitted by Duane prior to the meeting. The proposal was also reviewed alongside Mike Kennedy's 130.</p> <p>David Reddy asked why the wall insulation exception only applied to other than electric resistance, and should that be reconsidered.</p> <p>MOTION: Duane Jonlin moved to recommend approval as modified, based on his modified proposal with the addition of Mike Kennedy's proposed changes to the body of C402.1.1.2. Mike McGivern seconded the motion. The motion carried with one opposing vote.</p>
8. Other Business	None/not entertained due to time constraints
9. Adjourn	The meeting was adjourned at 3:16 p.m.