



STATE OF WASHINGTON

## STATE BUILDING CODE COUNCIL

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### Energy Code Technical Advisory Group Meeting Review Notes for June 11, 2021

**TAG Members Present:** Kjell Anderson, Chair; \*Michael Baranick; Erik Bedell, \*Christopher Boroughs; CJ Brockway; Michael Fowler; Patrick Hayes; Gary Heikkinen; Scott Henderson; Chris Holliday; Luke Howard; Duane Jonlin; \*Elizabeth Joyce; \*Jon Lange; Mike McGivern; Erik Olnon; Irina Rasputnis; David Reddy; Lisa Rosenow; Shaun Vig; Amy Wheelless

**TAG Members Absent:** Martin Connor, Allan Montpellier, Gavin Tenold

**Visitors Present:** Caroline Traube, Corey Wilker, Phil Lemley, Austin Bonnes, Andi Burnham, Sue Coffman, Sean Denniston, Kevin Duell, John Frankel, Mark Frankel, Adam Hutchinson, Mike Kennedy, Jonny Kocher, Eric Lacey, Tammy S. Linver, Rob Marks, K. Meske, Mike Paruszkiewicz, Nick O'Neil, Robby Oylear, D. Scott Peterson, Stan Price, Alexander Ratcliff, John Rothlin, Treasa Sweek, Aaron Tanner, Kelly Thomas, Eric Vander Mey, Aaron Whitlatch

**Staff:** Stoyan Bumbalov, Krista Braaksma, John McEntyre

\* indicates an alternate member

Agenda Items	TAG Actions
1. Welcome and Introductions	Meeting called to order at 8:31 a.m. Kjell Anderson welcomed everyone and roll was called.  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. He also noted that there were only a few proposals submitted that made substantial progress towards the 19 percent reduction in energy use for this cycle, and one of them was on the agenda for discussion today.
2. Review and Approve <a href="#">Agenda</a>	The agenda was approved with the modification of deferring the review of the June 4 meeting notes.
3. Review and Approve meeting notes from June 4, 2021	Deferred to the June 25, 2021, meeting.

<p>4. Review of Proposals: Editorial/Clarification</p> <p>Note: The following proposals were tabled until the June 25 meeting:</p> <ul style="list-style-type: none"> <li>• <a href="#">21-GP1-163</a> Threshold for Variable Flow</li> <li>• <a href="#">21-GP1-173</a> Increase Public Lav Max Pipe Length</li> </ul>	
<a href="#">21-GP1-224</a>	A workgroup was formed to go over, correlate and revise the three definition proposals. The workgroup consists of Lisa Rosenow, Aaron Whitlatch and Patrick Hayes
<a href="#">21-GP1-225</a>	
<a href="#">21-GP1-148</a>	
<a href="#">21-GP1-150</a>	Lisa Rosenow, Patrick Hayes and Duane Jonlin will go over the proposed changes to the mass transfer deck slab requirements.
<a href="#">21-GP1-149</a>	Lisa Rosenow presented a proposal cleaning up sections in C402 and adding some clarifications from the Seattle Energy Code. The TAG was in general agreement.
<a href="#">21-GP1-162</a>	Duane Jonlin introduced an exception to the vestibule requirements for exterior enclosed seating areas. The TAG was in general agreement.
<a href="#">21-GP1-235</a>	Nick O'Neil reviewed an updated version of his proposal incorporating some of the changes in ASHRAE 90.4 into the requirements for data centers. There was some concern expressed about amending the MLC values. The proposal was tabled to confer with the ASHRAE 90.4 committee.
<a href="#">21-GP1-97</a> (moved up from Item 5)	Sean Denniston introduced this proposal to require demand response thermostats. There was concern that this may not be possible for equipment with integral thermostats, such as heat pumps. There was also concern expressed that they needed to be compatible with the utilities. Additionally, it was felt there was a need to further specify what type of health care facilities were exempt. Proponent will work on a modification.
<a href="#">21-GP1-152</a>	Lisa Rosenow presented this proposal cleaning up some of the mechanical sections and adding clarification from the Seattle Energy Code. Mike Kennedy noted that a reference to C403.8.4 for exhaust fans needed to be added to the new exception language in C403.8.1. The TAG was in general agreement.
<a href="#">21-GP1-154</a>	The next proposal, also from Lisa Rosenow, restructures C403.3.2 and moves related section C403.6.7 up as a new subsection of C403.3.2. The TAG was in general agreement.
<a href="#">21-GP1-105</a>	The next proposal, from Alexander Ratcliff, just corrects a section reference within Section C402.5.7. The TAG was in agreement.
<a href="#">21-GP1-132</a>	Mike Kennedy spoke to his proposal to update the boiler efficiency table to the latest DOE standards that were adopted in January and will be effective January 1, 2023. Since that date is before the 2021 code will be effective, the TAG agreed that the minimum efficiency column for prior to Jan. 1, 2023, should be removed.

<a href="#">21-GP1-209</a>	Lisa Rosenow noted that this was a TAG assignment from the review of the integrated draft and cleans up the duct insulation requirement language. Aside from the need to reformat the exception, the TAG was in general agreement.
<a href="#">21-GP1-153</a>	Lisa also spoke to the next proposal, fixing a typo in the current code. Mike Kennedy noted there was also a bad section reference in item 9—it should be Section C403.8.1. The TAG was in general agreement.
<a href="#">21-GP1-237</a>	Lisa Rosenow proposed this change to clarify various lighting sections. Most clarifications come from the Seattle Energy Code. The TAG was in general agreement.
<a href="#">21-GP1-151</a>	Lisa Rosenow noted this clarifying language relating to insulation requirements for roof replacement comes from Seattle. There were no TAG comments.
<a href="#">21-GP1-90</a>	Mike Fowler introduced a proposal to remove the unnecessary—now—2018 EUI column in Appendix F and move the “Current” title to the 2021 column. There was general agreement for this change. There was some incidental discussion of the target EUI values based on the results of the 2018 Energy Code progress report.
<p>5. Review of Proposals: Mechanical</p> <p>Note: The following proposals were tabled until the June 25 meeting:</p> <ul style="list-style-type: none"> <li>• <a href="#">21-GP1-164</a> Extend HP Requirement to Split Systems</li> <li>• <a href="#">21-GP1-166</a> Hydronic System Max Flow in Piping System</li> <li>• <a href="#">21-GP1-227</a> DDC Controls</li> <li>• <a href="#">21-GP1-167</a> Pressure Independent Control Valves</li> <li>• <a href="#">21-GP1-240</a> Operable Openings Interlock</li> </ul>	
<a href="#">21-GP1-129</a>	Mike Kennedy presented his proposal, stating it was not the purpose of this proposal to expand the scope. There is language in C403 exempting process equipment except for some specific provisions, including sections beyond just mechanical. This provides a new general section with that language, and exceptions in the general sections of C404 and C405. The TAG was in general agreement.
<a href="#">21-GP1-103</a>	Jonny Kocher presented a proposal, based on the Seattle code, for fossil fuel free space heating as a way to meet the 19 percent energy reduction goal for this code to keep pace with the state energy strategy. There was TAG discussion regarding the applicability of heat pumps in colder areas and the total elimination of gas and hydrogen options. It was also noted that with the increased use of air conditioning Washington is seeing summer peaks load. Sean Denniston suggested looking at the code Denver is developing for partial electrification.
<a href="#">21-GP1-236</a>	Nick O’Neil presented his proposal requiring demand control ventilation on kitchen exhaust. The TAG debated terminology, eventually settling on demand control kitchen ventilation—DCKV—as the preferred industry term. There was concern that exception 1 would make it impossible to use with a DOAS system. It was also felt there should be a requirement that the controls be on the hood.

<a href="#"><u>21-GP1-138</u></a>	Nick O'Neil introduced the next proposal on fan power limitation, with language that is going through the 90.1 committees now, based on a California case study. It moves the threshold down to 1 kW to include smaller fan systems. There were no TAG comments.
<a href="#"><u>21-GP1-008</u></a>	Mike McGivern introduced his proposal to coordinate FDD requirements with DDC requirements within the code. There were comments regarding the utility of FDD systems within the base code, but not with the content of the proposal.
<a href="#"><u>21-GP1-147</u></a>	The discussion on proposals 147 and 52 were merged. Currently the two proposals conflict. The proponents (Mark Frankel and Robby Oylear) will work with Elizabeth Joyce to address concerns voiced by the TAG.
<a href="#"><u>21-GP1-52</u></a>	
<a href="#"><u>21-GP1-194</u></a>	Mike Kennedy introduced his proposal modifying PTHP requirements to allow a wider range of products that can comply. There was some discussion of availability of products, but no other comments on this proposal.
<a href="#"><u>21-GP1-139</u></a>	Nick O'Neil spoke to his proposal for boiler controls, with language aligning with California's Title 24. There was some question as to scope and applicability. Additional language will need to be added to clarify. Mike Kennedy noted it would need to be included in the language in his proposal 129 as well.
<a href="#"><u>21-GP1-133</u></a>	Mike Kennedy said the language in this proposal on high capacity gas-fired boilers was currently in an ASHRAE 90.1 addendum and will therefore not be a preemption issue. It was noted this would need to be correlated with the coils proposals in 147 and 52.
<a href="#"><u>21-GP1-54</u></a>	Robby Oylear introduced his proposal on part load controls and thermal energy storage. While these systems are not common, they will become more popular with the increase in heat pumps. The discussion centered around the need for a threshold and definition of a thermal energy storage system.
<a href="#"><u>21-GP1-184</u></a>	Lisa Rosenow introduced her proposal adding an exception to the economizer requirements for PTHP use in hotel/motel and licensed care facilities. Currently they would need to exceed the minimum efficiency by 15 percent to be exempted from economizer requirements, and no equipment can currently meet that requirement.
<a href="#"><u>21-GP1-185</u></a>	Lisa Rosenow said this proposal closes a loophole in the code that allows PTHP and PTVP use without an economizer in Group R-2 when combined with a DOAS system, rather than a high efficiency heat pump system. There were no TAG comments.
<a href="#"><u>21-GP1-228</u></a>	Eric Vander Mey introduced his proposal clarifying that mini splits are not outlawed, specifying that the condensing unit portion can be installed outdoors as long as the supply fan coil portion is installed indoors and not in a mechanical room. The TAG suggested some editorial fixes, including adding language from Lisa's 185 to exception 1 and changing "supply fans" to "where the supply fan is..."

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5. Meeting Schedule	The next meeting will be next Friday, June 25, at 8:30am.
6. Other Business	None.
7. Adjourn	The meeting was adjourned at 2:00 p.m.