



STATE OF WASHINGTON

## STATE BUILDING CODE COUNCIL

Department of Enterprise Services

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### Residential Energy Code Technical Advisory Group Meeting Review Notes for May 27, 2022

**TAG Members Present:** Kjell Anderson, Chair; Dave Baylon; Jason Carter; Wade Craig; Greg Davenport; Daimon Doyle; \*Kevin Duell; Mike Fowler; Patrick Hayes; Gary Heikkinen; Luke Howard; Jonathan Jones; Duane Jonlin; \*John Lange; Jeanette McKague; Henry Odem; Irina Rasputnis; \*Liz Reichart; \*Lisa Rosenow; Andrea Smith; Mark Sniffen; \*Poppy Storm; Gavin Tenold; Amy Wheelless

**Visitors Present:** Senator Lynda Wilson, Representative Larry Hoff, Craig Holt, Peter Rieke, Larry Andrews, Ian Casey, Sean Denniston, Nathan Glass, Mike Kennedy, Megan Kramer, Eric Lacey, Duane Lewellen, Carolyn Logue, Kevin Meske, Sonja O'Claire, D. Scott Peterson, Tena Risley, Kevin Rose, Steve Tapio, Kelly Thomas, Dan Wildenhaus

**TAG Members Absent:** David Reddy

**Staff:** Stoyan Bumbalov, Krista Braaksma, Annette Haworth

\* indicates an alternate member

Agenda Items	TAG Actions
1. Welcome and Introductions	<p>Kjell Anderson, TAG Chair, called the meeting to order at 8:30 a.m. Roll was taken, and introductions made. Kjell laid out the meeting ground rules and meeting procedures.</p> <p>Patrick Hayes moved to require a roll call vote if the vote is not unanimous. Andrea Smith seconded the motion. The motion failed, 7 to 11.</p> <p>Duane Jonlin suggested a roll call vote if there was confusion on the outcome of any vote. It was noted that a roll call vote can be requested on any issue.</p>
2. Review and Approve <a href="#">Agenda</a>	The agenda was approved as written.
3. Review and Approve Minutes of <a href="#">May 6</a> and <a href="#">May 13</a>	The minutes of the May 6 and May 13, 2022, meetings were approved as written.
4. Review of Code Change Proposals	Kjell noted that the TAG would need to schedule another meeting in order to address all of the code change proposal. He suggested June 7 or June 9 and asked staff to poll members on availability.
<a href="#">073</a>	The first proposals considered is from Henry Odem regarding the additional efficiency credit section. Ecotope did a fairly extensive modeling study to determine the previous baseline and impacts from the most recent model code updates to adjust the point requirements to arrive at a 14 percent energy savings over the last code. The proposal ties in the heating source type with the credits available for the envelope options. Options that are now part of the baseline were removed or adjusted. Addition compliance was modified to begin at 100 square feet.

	<p><i>It was noted the linked file did not contain the additional analysis material in the presentation copy. That data is linked <a href="#">HERE</a>. It was noted that Ecotope worked with other stakeholders and the work was partially funded through NEEA.</i></p> <p>Kjell asked that the Fuel Normalization table be rearranged so that the credit table reads System Types 1, 2, 3 and System Types 4, 5.</p> <p>There was a long discussion on the cost data and concerns that the cost data was out of date. Other concerns were the number of points required for small dwellings and additions, the emission metrics and the effects of the fuel normalization table, the cost and difficulty in achieving points, and availability of a menu of pathways options to achieve the necessary credits.</p> <p><b>Motion:</b> Dave Baylon moved to recommend <a href="#">approval as modified</a>. Duane Jonlin seconded the motion. The motion carried, 10 to 8.</p>
<p><a href="#">022</a></p>	<p>Andrea Smith introduced this proposal to correct scope of R406 to not require R406 compliance when using the R405 compliance path.</p> <p>Dave Baylon noted Section R401.2 would need to be modified instead, to remove the second sentence in item 2. The TAG agreed. It was noted that the mandatory provisions table in R405 would also need to be changed to remove R406 from the list.</p> <p><b>Motion:</b> Dave Baylon moved to recommend <a href="#">approval as modified</a>. Amy Wheelless seconded the motion. The motion carried with no opposing votes.</p>
<p><a href="#">061</a></p>	<p>Gary Heikkinen introduced this proposal to delete the fuel normalization table in R406 and base the efficiency credits solely on energy savings. Gas utilities provides are regulated under the Climate Commitment Act to achieve a 95 percent reduction in carbon emissions by 2045, so consumers shouldn't be constrained or limited when complying with R406. The proposal also increases the number of points required and requires options from at least three different categories to be chosen. Point values for envelope measures were increased by 50 percent, as they are a longer-lived measure than equipment.</p> <p>TAG concerns included the fact that the option measures all represent a specific energy savings and increasing one category would not be in line with that basis, it is seen as a rollback for all systems other than heat pumps, the increase in other point values does not seem to correlate with the removal of the normalization table.</p> <p><b>Motion:</b> Gary Heikkinen moved to table the proposal meld this proposal together with 073 and review the credit amounts. Daimon Doyle seconded the motion. The motion failed, 9 to 10.</p> <p><b>Motion:</b> Henry Odem moved to modify the proposal to strike everything except the addition of a gas fired heat pump water heater option. Jonathan Jones seconded the motion. The motion failed, 2 to 16.</p> <p><b>Motion:</b> Duane Jonlin moved to recommend disapproval. Dave Baylon seconded the motion. The motion carried, 13 to 5.</p>
<p><a href="#">034</a></p>	<p>Jonathan Jones introduced the proposal adding an option for credit for a smart thermostat. Studies have shown that these types of thermostats result in energy savings.</p> <p>TAG discussion centered around availability of thermostats from major manufacturers and those with proprietary systems, how they would work with various utility programs (if present), and the amount of credit. It was also noted that there would need to be some sort of descriptor or criteria to meet.</p>

	<p><b>Motion:</b> Daimon Doyle moved to recommend <a href="#">approval as modified</a>. Andrea Smith seconded the motion. The motion carried, 13 to 4.</p>
<a href="#">023</a>	<p>Greg Davenport introduced this proposal to require a cold climate heat pump in areas they should be used, and allow a slightly lower efficiency to provide some flexibility.</p> <p>The TAG debated the availability and cost differences between 9.0 and 9.5 HSPF heat pumps They also spent some time refining the code language.</p> <p><b>Motion:</b> Dave Baylon moved to modify the proposal to require 9.5 HSPF. Duane Jonlin seconded the motion. The motion carried, 10 to 6 with two abstentions.</p> <p><b>Motion:</b> Duane Jonlin moved to recommend <a href="#">approval as modified</a>. Gavin Tenold seconded the motion. The motion carried, 14 to 3 with one abstention.</p>
<a href="#">024</a>	<p>Greg Davenport also introduced this proposal, with similar goals to 023 but addressing the option requiring a 11 HSPF heat pump. He agreed to the same language fixes made to the previous proposal.</p> <p>The TAG continued their discussion on availability of heat pumps, and whether the higher efficiency heat pumps included variable speed drives.</p> <p><b>Motion:</b> Mike Fowler moved to modify the proposal to require 11 HSPF for option 3.5. Gavin Tenold seconded the motion. The motion failed, 7 to 8 with three abstentions.</p> <p><b>Motion:</b> Dave Baylon moved to recommend <a href="#">approval as modified</a>. Daimon Doyle seconded the motion. The motion carried 18 to 0.</p>
<a href="#">025</a>	<p>Greg Davenport presented another proposal for HP systems in smaller townhouses. The smaller split systems have slightly lower efficiency rates but are a better design choice than installing an oversized system.</p> <p>The TAG briefly discussed the design advantages of the smaller systems.</p> <p><b>Motion:</b> Daimon Doyle moved to recommend approval as submitted. Andrea Smith seconded the motion. The motion carried with no opposing votes.</p>
<a href="#">050</a>	<p>Jonathan Jones introduced a proposal to include COP ratings for the heat pump options in R406. There are some products that don't have an HSPF rating, especially with emerging technologies.</p> <p>The TAG had concerns that this wasn't just a straight conversion, since the HSFP rating is over several temperature points while COP is a single point. Jonathan will work with interested parties to provide further information.</p> <p><b>Motion:</b> Greg Davenport moved to table the proposal until the next meeting to address concerns. Gary Heikkinen seconded the motion. The motion carried with no opposing votes.</p>
<a href="#">047</a>	<p>Dan Wildenhaus introduced a proposal for credits for a compact water distribution system designed under the system defined in proposal 046, which he was hoping would be heard first.</p> <p>The TAG discussed the proposal and voiced some concerns over the pipe length from heat source to fixture and how this would correlate with the plumbing code. There were also concerns regarding the credit awarded.</p> <p>There was a motion made by Gary Heikkinen and Jason Carter, but it was not voted due to time constraints.</p>

	Dan agreed to work with stakeholders and come back with a revised proposal.
	The remainder of the agenda will be addressed in upcoming meetings.
5. Adjourn	The meeting was adjourned at 2:15 p.m.

Attachments: [Updated Tracking Log](#)  
[073 LCCA documentation](#)