



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 June 3, 2022

TAG Members Present: Kjell Anderson, Chair; Dave Baylon; *Christopher Boroughs; Jason Carter; Wade Craig; Greg Davenport; Daimon Doyle; Mike Fowler; Patrick Hayes; Gary Heikkinen; Luke Howard; Jonathan Jones; Duane Jonlin; *Megan Kramer; *Jon Lange; Jeanette McKague; Henry Odem; Irina Rasputnis; David Reddy; *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, Aaron Adelstein, Bryan Ahee, Howard Ahern, Larry Andrews, Tim Attebery, Jay Balasbas, Gretchan Blum, Mike Brown, Ken Brouillette, Ian Casey, Kathleen Collins, Aline Crinon, Bret Davis, Sean Denniston, Chris Edmark, Maya Gillett, Jack Harroun, Jim Hedemark, Daniel Himebaugh, Ly Ho, Harshad Inamdar, Mike Kennedy, Linda Kent, Jonny Kocher, Rachel Koller, Eric Lacey, Jim Lenssen, Carolyn Logue, Greg Lotakis, Michael Lubliner, Max Mankin, Ted McCammant, Megan McPhaden, Todd Myers, Scott Novak, Sonja O’Claire, Nina Olivier, Mothusi Pahl, D. Scott Peterson, Christine Reid, Tena Risley, Kevin Rose, John Rothlin, Ray Shipman, Trevor Smith, Thomas Smithson, Steve Tapio, Greta Tjelveit, Cybil Tribie, Dan Wildenhaus

TAG Members Absent: None

Staff: Stoyan Bumbalov, Krista Braaksma, Annette Haworth

* indicates an alternate member

Agenda Items	TAG Actions
1. Welcome and Introductions	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. It was noted that the meeting would run until 3 pm today.
2. Review and Approve Agenda	The agenda was approved as modified. Kevin Duell’s proposals 067, 069 and 068 were moved to be heard after 046, and Lisa Rosenow’s proposals 088 and 081 were moved to be heard before 035.
3. Review and Approve Minutes of May 27, 2022	The minutes of the May 27, 2022, meetings were not available and will be reviewed at the next meeting.
4. Review of Code Change Proposals	Kjell stated that a roll call vote would be called if there was more than one dissenting vote heard.
065	Sean Denniston introduced his proposal for heat pump space heating. He noted they did convene a group of interested parties to provide feedback and the modified proposal shown includes changes responding to as many of the concerns they could address while still maintaining the central point of the proposal—advance the fundamental efficiency of the residential energy code. They include striking the specification of electric in the scoping language to allow the use of gas heat pumps, adjusting the exempted wattage for electric resistance in dwellings with low heating demand,

	<p>Section R403.7.1 was struck as it is now redundant, and “other systems as approved” was removed as being too broad and subjective.</p> <p>Concerns expressed included lack of time to review this latest revision and the revised cost analysis, and the impact on the electric grid and workforce.</p> <p>Motion: Daimon Doyle moved to table the proposal until June 7. Andrea Smith seconded the motion. The motion carried, 8 to 6 with four abstentions.</p>
<p>066</p>	<p>Sean Denniston introduced the revised version of the heat pump water heating proposal. Again, the responded to as many of the concerns as they could while retaining the intent and efficiency gains. They acknowledged it could be difficult to implement in low rise residential without central water heating and restricted the scope to one and two family homes and townhouses. An exception was added for dwelling units under 1,000 square feet. And, because of the limitation in scope, the exception for high temperature systems was removed. The supplementary heating section was modified to address concerns about being able to meet demands for larger families. The revision also included modifications to the fuel normalization table, giving normalization credit for heat pump water heaters.</p> <p>The TAG discussed the changes to the fuel normalization table and whether they were warranted, as the basis for the table is space heat type. Other concerns expressed were the impacts to the electrical grid, whether this would have an actual impact on carbon emissions, and if high efficiency gas appliances should be included.</p> <p>Motion: Andrea Smith moved to table the proposal until Tuesday. Patrick Hayes seconded the motion. The motion failed, 7 to 10 with two abstentions.</p> <p>Motion: Greg Davenport moved to approve the modified proposal. Gavin Tenold seconded the motion.</p> <p>Amendment to the Motion: Henry Odem offered an amendment to the motion to remove the changes to the fuel normalization table. He also noted the R406 credit table would need to be adjusted if this proposal goes forward. Mark Sniffen seconded the motion. The motion passed unanimously.</p> <p>Amendment to the Motion: Gary Heikkinen moved to add an exception to allow high efficiency gas water heaters. Patrick Hayes seconded the motion. The TAG discussed the differences in efficiency between the two water heating systems and whether this would trigger any federal preemption issues. The motion failed, 8 to 10 with one abstention.</p> <p>The TAG further discussed the proposal and whether it was necessary based on the current used of the heat pump water heater credit option, and the supply chain issues brought to the Council’s attention recently.</p> <p>Vote on the Main Motion: The motion carried, 10 to 9.</p>
<p>088</p>	<p>Lisa Rosenow introduced her proposal to set some minimum requirements for air leakage testers from an accredited program and require a time stamp and location on the test results.</p> <p>The TAG discussed concerns over the certification requirements, who was qualified, if there would be any grandfathering or inclusion of other types of certification, and the costs associated with no economic analysis. It was also discussed that this may assist efforts to retrain the underground economy and put contractors on even ground. It was also mentioned that this should be modified for consistency with previously passed proposals.</p>

	<p>Motion: Dave Baylon moved to recommend approval as written. Greg Davenport seconded the motion.</p> <p>Motion: Lisa Rosenow moved to table the discussion, stating she would be happy to rewrite the proposal to address some of the testing and grandfathering concerns. Amy Wheelless seconded the motion. The motion carried unanimously.</p>
081	<p>Lisa Rosenow also sponsored this proposal to reorganize the requirements for combustion air openings and fireplaces, moving the sections out of the air barrier section and located it back with the other specific provisions.</p> <p>Motion: Amy Wheelless moved to recommend approval as submitted. Mike Fowler seconded the motion. The motion carried with no opposing votes.</p>
035	<p>Jonathan Jones spoke to the proposal to exempt very small additions from having to meet the requirements of R406, since it is difficult for them to comply with any of the options.</p> <p>The TAG discussed the proposal and the specific square footage proposed, including the increase in stringency for duct testing. It was suggested that the reference to electric resistance heating be struck. As written, it provides confusion and is not really necessary. Jonathan agreed to the modification.</p> <p>Motion: Duane Jonlin moved to recommend approval as modified, including modifying the size to 150 square feet in all three modified sections. Greg Davenport seconded the motion. The motion carried with no opposing votes.</p>
036	<p>Jonathan Jones introduced this proposal to “draw a line in the sand” regarding remodels and what is triggered when. This sets two steps for alterations, at 75 percent or more of the floor area and at 51 to 74 percent. It also provides an alternate to complying with Section R406.</p> <p>The TAG had concerns about correlating the criteria with the existing building code, enforcement problems, and exempting a lot of alterations. The TAG agreed the language needed a lot of work and correlation.</p> <p>Motion: Diamon Doyle moved to recommend disapproval. Patrick Hayes seconded the motion. The motion carried unanimously.</p>
067	<p>Gary Heikkinen presented this proposal on behalf of Kevin Duell. Based on the previous action on 066, he feels that the first exception is not needed and can be struck, along with the first part of the second exception, and changing it to an exception allowing gas water heating with a UEF of 0.92 or better.</p> <p>The TAG discussed the efficiency and the difference in efficiency between a heat pump water heater and a condensing gas water heater.</p> <p>Motion: Gary Heikkinen moved to recommend approval as modified. Patrick Hayes seconded the motion. The motion failed 7 to 12.</p> <p>Motion: Duane Jonlin moved to recommend disapproval. Greg Davenport seconded the motion. The motion carried, 12 to 7.</p>
051	<p>Gary Heikkinen introduced his proposal to eliminate the use of carbon emissions in the total building performance section and go back to annual energy use. The current method unfairly disadvantages gas technologies and provides an advantage to electric technologies. The metric also causes confusion and there is no consensus on what the emission factors should be. He noted that the percentage of annual use is not modified and therefore this would not change action taken on previous proposals.</p>

	<p>The TAG discussed the impacts of the Climate Commitment Act and how RCW 19.27.020 fits into that. Other concerns discussed were the impacts of using carbon emissions on plan review and enforcement and decreasing the stock of buildings using fossil fuels.</p> <p>Motion: David Reddy moved to recommend disapproval. Duane Jonlin seconded the motion. The motion carried, 11 to 8.</p>
052	<p>This proposal is similar to the other emission factor proposals that were moved, and the TAG determined it should also be tabled until the other two proposals are heard.</p>
045	<p>Sonja O’Claire introduced the proposal to allow Built Green certification compliance similar to the allowance of Passive House compliance. Built Green has been used in western Washington since 2000 and statewide since 2009, using third party verification to build above code single and multifamily dwellings.</p> <p>Dan Wildenhaus noted the program provides additional flexibility and is better adopted and recognized across the state than Passive House. It would add an option for energy modeling that is currently not utilized in the energy code.</p> <p>The TAG discussed the program and options, noting that there were additional factors used beyond energy code compliance. Some of the concerns discussed included why it was necessary if it required compliance with the code, how this would impact utility incentive programs and documentation requirements for the building official.</p> <p>Motion: Patrick Hayes moved to recommend disapproval. Duane Jonlin seconded the motion. Motion carried, 8 to 3 with eight abstentions.</p>
097	<p>Jonathan Jones introduced a proposal to add the ERI compliance path based on the model code language. This path would use third party compliance and would help ease the burden on local jurisdictions. The requirements in the integrated draft were provided to an expert in the field who modeled them and came up with the ERI values proposed; ultimately a single climate zone number of 47 is recommended. These numbers will need to be updated based on other actions taken.</p> <p>The TAG discussed the recommended values and asked for some of the data and methods used to arrive at the recommendations. There was also concern that the option did not take any carbon emissions into account. Other concerns included how this would impact inspection and that the analysis is complicated and takes special skills to generate.</p> <p>Motion: Gavin Tenold moved to recommend disapproval. Patrick Hayes seconded the motion. The motion carried, 9 to 8 with two abstentions.</p>
	<p>The remainder of the agenda will be addressed in upcoming meetings.</p>
5. Adjourn	<p>The meeting was adjourned at 3:01 p.m.</p>

Attachments: [Updated Tracking Log](#)