

Energy Sub-Workgroup Meeting Summary

May 12, 2022 - 9:00 a.m. – 12:05 p.m.

Virtual Meeting: <https://vadhcd.adobeconnect.com/va2021cdc>

ATTENDEES:

VA Department of Housing and Community Development (DHCD) Staff:

Jeff Brown: Director, State Building Codes Office (SBCO)

Richard Potts: Code Development and Technical Support Administrator, SBCO

Paul Messplay: Code and Regulation Specialist, SBCO

Florin Moldovan: Code and Regulation Specialist, SBCO

Jeanette Campbell: Administrative Assistant, Building and Fire Regulations (BFR)

Kyle Flanders: Senior Policy Analyst and Regulatory Administrator

Sub-Workgroup Members:

Andrew Clark: Homebuilders Association of Virginia (HBAV)

Chelsea Harnish: Virginia Energy Efficiency Council

Eric Lacey: Responsible Energy Codes Alliance (RECA)

K.C. Bleile: Viridiant

Steve Shapiro: Apartment & Office Building Association (AOBA), Virginia Apartment Management Association (VAMA)

William (Bill) Penniman: Sierra Club; Virginia chapter

Other Interested Parties:

Ben Rabe: New Buildings Institute

David Owen: Home Building Association of Richmond

Daniel Willham: Fairfax County, Chair of VBCOA Building Code Committee

Ellen Eggerton: Alexandria Sustainability Coordinator and VBCOA member

Jacob Newton: Virginia, Maryland Delaware Association Electric Cooperatives

Jimmy Moss: Virginia Building and Code Officials Association (VBCOA)

John Ainslie: Ainslie Group and HBAV President

Michael (Mike) O'Connor: Virginia Petroleum and Convenience Marketers Association (VPCMA)

Ross Shearer: Citizen, Virginia

Sarah Thomas: The Vectre Corporation

Steve Sunderman: Resilient Virginia

Sub-Workgroup Members not in attendance:

Andy McKinley: American Institute of Architects (AIA), Virginia

Bettina Bergoo: Virginia Department of Energy

Brian Clark: Habitat for Humanity

Corey Caney: International Association of Electrical Inspectors (IAEI), Virginia

Ellis McKinney: Virginia Plumbing and Mechanical Inspectors Association (VPMIA)

Jeff Mang: Polyisocyanurate Insulation Manufacturers Association

Jim Canter: Virginia Building and Code Officials Association (VBCOA)

Maggie Kelley Riggins: Southeast Energy Efficiency Alliance

Welcome and Introductions

Richard Potts: Welcomed participants. The agenda contains proposals carried over from the April 11, 2022 meeting, as well as new proposals. He introduced the DHCD staff. He asked group members to stay muted unless speaking. He explained that the Sub-workgroup members will vote in support or non-support of proposals. If the Sub-workgroup members are in support of a proposal, the proponent will be offered an opportunity to list the Sub-workgroup as a co-proponent. If the Sub-workgroup is not in support of a proposal, it will be reflected by the meeting summary.

Participants introduced themselves.

Carried over proposals from April 11, 2022

REC-R402.4-21

Bill Penniman: This is a proposal to bring the air leakage standards up from the 2012 to the 2021 IECC levels. He is still waiting to have discussions with Andrew Clark and other interested parties, hoping to gain consensus, so he is willing to carry this over.

Richard: Next week will be the last opportunity for this Sub-workgroup to meet before the Workgroup meetings.

Andrew Clark: This is similar to a proposal Eric and Laura submitted, and they will be meeting about that one on Monday. He will send an invite to Bill to join the discussion. He asked what the next steps are in the process.

Richard: The Workgroup meeting is in June, then the proposals go to the Codes and Standards Committee of the BHCD for the final vote. May 1st was the cutoff to get proposals into cdpVA, however, if there are still discussions and changes are agreed upon prior to the Workgroup meeting in June, they can be presented during that meeting as a floor amendment.

Andrew: After the June Workgroup meetings, is there any possibility to amend proposals if consensus was reached?

Richard: Not that he knows of, but he will ask Jeff and Cindy if there would be any opportunity for that, and let the group know next week.

Andrew: He would appreciate that.

Richard: This proposal will be carried over until next week's Sub-workgroup meeting.

EC-C407.6-21

Bill: Made some wording changes to incorporate feedback he received at the last Sub-workgroup meeting. This would now include a building constructed or marketed as zero energy in the appendix. The builder would be required to notify the building official that they intend to market the building as such, and provide test results on the permanent Certificate as per the standards in the appendix.

Steve Shapiro: Talked with Bill outside of the meeting, he appreciates the wording change, but he still doesn't think this belongs in the building code because it's marketing. It still says that the inspection must comply with the appendix. He doesn't support this.

Bill: The appendix is already there, this just makes it operational in a meaningful way.

Andrew: Agrees with Steve, he can't identify any other provisions in the code dealing with advertising. Only one section came close and it was regarding universal design features.

Eric Lacey: Agrees that there should be more uniform labeling for buildings that say they are net zero. He wondered if it would be possible to reference the appendix as an optional compliance path. Formally recognizing a net zero program in the code might also work.

Bill: He is open to the idea, which is better than non-consensus.

Steve Sunderman: Air leakage is one of the most important and least costly ways to improve building performance.

Steve Shapiro: Will not be able to join the May 19th Sub-workgroup meeting, but would be happy to review any language sent to him by the proponent.

Richard: Asked if Steve Shapiro had an alternate representative who could join the meeting.

Steve Shapiro: Will try to get someone, but isn't sure he will be able to.

Andrew: Would also be happy to review any changes to the language prior to the next Sub-workgroup meeting.

Richard: this will be carried over until the next Sub-workgroup meeting.

REC-R402.1.2(1)-21 and REC-R402.1.2(2)-21

Eric: These are the wall insulation proposals for Virginia to catch up with the model code. There is a group of stakeholders meeting to discuss these on Monday, before the next Sub-workgroup meeting, and he hopes to reach or come closer to consensus. He asked to carry these proposals over until the next Sub-workgroup meeting.

Richard: These proposals will be carried over until next week's Sub-workgroup meeting.

REC-R402.4.1.2-21

Eric: Stakeholders are meeting to discuss this proposal on Monday also, same as the prior two. He asked to carry this proposal over until the next Sub-workgroup meeting.

Richard: This proposal will be carried over until next week's Sub-workgroup meeting.

REC-R403.3.3-21

Eric: This proposal adopts the duct tightness testing in conditioned space, which was adopted in the 2021 IECC. He did make some changes based on feedback at the last Sub-workgroup meeting. He changed the proposal to require compliance with the VRC if using building cavities for ducts and to require duct leakage testing for ducts located within the envelope. He is again hoping to carry this over for additional discussion prior to the next Sub-workgroup meeting.

Richard: Hearing no further discussion, and seeing that Andrew typed in the chat that he has it on the agenda for Monday's discussion, this will also be carried over until next week's Sub-workgroup meeting.

New proposals

REC-R403.1.4

Bill: This proposal restricts on-site combustion as a primary heat source. It would allow fossil fuels as supplemental heat sources. It's not a total ban, just calls for electrification as a primary heat source. It should reduce cost of construction and operation, as well as being healthier for occupants.

Mike O'Connor: Virginia Petroleum and Convenience Marketers Association and Virginia Propane Gas Association oppose this proposal.

Ben Rabe: Supports this proposal

Andrew: Home Builders Association of Virginia does not support this proposal.

Richard: A vote resulted in Steve Shapiro, Andrew, and KC showing thumbs down, while Eric and William voted thumbs up. John Ainslie, and David Owen noted their opposition as well. This proposal will not be supported by the Sub-workgroup.

REC-R403.1.4(2)

Bill: This is a variation of the last proposal. If air conditioning is installed, a heat pump should be installed as the primary source of energy. Other fuels could be used to supplement or provide backup.

Ben: It is better than having separate heating and cooling systems.

Mike: Virginia Petroleum and Convenience Marketers Association and Virginia Propane Gas Association oppose this proposal.

Andrew: Home Builders Association of Virginia does not support this proposal.

Richard: A vote resulted in Steve Shapiro and Andrew showing thumbs down, while Eric and William voted thumbs up. In the chat box, David noted opposition and Steve Sunderman noted support. This proposal will not be supported by the Sub-workgroup.

REC-R404

Bill: This assumes that fossil fuels will be used for some appliances. It would require a raceway or circuit to support future electrification if the owner desires. Raceway conduits are low cost. This will allow people to switch to electric with no additional cost in the future.

Ben: Supports this proposal. Much less expensive and more convenient than switching with new conduit later.

Mike: Virginia Petroleum and Convenience Marketers Association and Virginia Propane Gas Association oppose this proposal.

Andrew: Home Builders Association of Virginia opposes this proposal.

Eric: It provides future options, and it doesn't rule anything out. He asked those opposed to give a reason.

Steve Sunderman: In a 2018 code change, there was an outlet required in case someone wanted to install a generator later. This is in line with that change, it makes sense, and helps homeowners prepare for the future.

Bill: Also asked the opposition to say why they were opposed.

Richard: A vote resulted in Andrew showing thumbs down, while Eric, KC and Bill voted thumbs up. In the chat box, David and John noted opposition. This proposal will not be supported by the Sub-workgroup.

REC-R1104.2

Bill: This proposal is for EV readiness in small residential/townhouse/duplex categories. They have discussed with Andrew, and would like to carry over in order to continue discussions.

Andrew: Thinks this may have a good chance of reaching consensus after more discussion. They also discussed it with Dominion Energy, who said that they could handle the utility infrastructure if the proposal passed. He does have some concern about getting this done by the June timeline. He said he would be happy to continue discussion and carry over and welcomed any other Sub-workgroup members to join the discussions if they wanted to.

Mike: Where is the language limiting to townhomes?

Bill: Because it's in Residential code, not the Construction code, it would only apply to single family, duplex and townhouse dwellings. Is that correct?

Richard: The "R" provisions of the IECC would also include multi-family occupancies 3 stories or less, unless specified otherwise.

Bill: That is another good reason to carry over.

Andrew: Discussions with Bill seemed to be limited to single family homes with garages. They were not even considering townhomes or multi-family dwellings.

KC Bleile: Asked Richard to clarify the time frame for full adoption of any codes voted in by the BHCD.

Richard: The anticipated approximate effective date would be late 2023. The USBC allows prior code edition to be used for a year after. So, latest would be late 2024.

KC: Would like to have other developers and utilities involved in this discussion as well. She will let them know.

Andrew: This would affect existing developments that have already been approved,. Requiring the additional infrastructure for EV may trigger new reviews by the approving authorities. Many builders are already offering this as an option. Asked DHCD staff if they could assist with convening a group of utilities to discuss the timeline.

Jacob Newton: Is part of an electric cooperative, and he would be interested in coordinating a meeting.

Steve Shapiro: typed in the chat box that he would also be interested in meeting with utilities folks.

Richard: Richard will ask Jeff and Cindy if there's any leeway to assist with offline meetings. This proposal will be carried over until the next Sub-workgroup meeting.

{BREAK 10:11 – 10:20}

REC-R503.1.2

Ben: This proposal would require the sizing of HVAC systems for alterations to comply with the same requirements as for new construction.

Richard: If approved, this will also need to be coordinated with the existing building code.

Eric: RECA supports this proposal.

Ellen Eggerton: Supports this proposal.

Chelsea: Typed in chat VAEC supports the proposal.

Richard: Hearing no further discussion, a vote resulted in only thumbs up. This proposal will be supported by the Sub-workgroup and Ben would like the Sub-workgroup to be listed as a co-proponent.

REC-R503.1.2.1

Ben: This proposal relates to HVAC system controls applicable to alterations and is a companion to the prior proposal.

Eric: RECA supports.

Richard: Hearing no further discussion, a vote resulted in only thumbs up. This proposal will be supported by the Sub-workgroup and Ben would like the Sub-workgroup to be listed as a co-proponent.

EC-C1301.1.1.1(2)

Bill: This proposal is for the VCC to comply with the 2021 IECC. It's fully supported by the Department of Energy and has rapid full payback.

Steve Shapiro: AOBA and VAMA are opposed.

Andrew: HBAV is opposed.

Richard: Hearing no further discussion, a vote resulted in Andrew and Steve Shapiro showing thumbs down. Bill and Eric gave thumbs up. Mike and John also indicated opposition. This proposal will not be supported by the Sub-workgroup.

EC-C405.10

Bill: This proposal is about EV readiness in multi-family homes. It would provide a base level of EVSE installed spaces and some EV ready spaces. The remainder of the units would be supported by EV capability. The bulk of the spaces would not have electrification initially, but there would be places ready to expand as needed. He spoke with Steve Shapiro outside of this Sub-workgroup meeting, and he will reach out to his constituents for further consideration. He would be willing to continue to meet with interested parties to discuss and come closer to consensus. He asked to carry this proposal over to the next Sub-workgroup meeting.

Richard: This would carry over into commercial and multi-family 3 and 4+ story dwellings. DHCD has a similar proposal, which would have certain specific requirements. That proposal will be reviewed later in the meeting.

Steve: Is still getting feedback from stakeholders, and discussions will continue.

Ben: Supports this proposal, and also has an EV proposal submitted. He would be willing to continue discussions as well.

Sarah Thomas: Introduced herself as from The Vectre Corporation and is representing The Virginia Association of Commercial Real Estate. She is also reaching out to members about this and other EV proposals and would like to carry this proposal over as well.

KC: Appreciates that Bill broke the multi-family proposal away from the single family homes.

Richard: This proposal will be carried over to the next Sub-workgroup meeting.

EC-C405.11.1

Bill: This is an EV readiness proposal for commercial spaces with more than 10 parking spaces. There would be a few EV installed spaces, some EV ready spaces and the remainder would be EV capable. He would like to carry this proposal over to continue discussions outside of the Sub-workgroup.

Richard: Hearing no further discussion, this will be carried over to the next Sub-workgroup meeting.

EC-C403.7.7

Richard: The proponent, Richard Grace was not present in the call, nor was there a representative present to

Speak on his behalf.

Florin Moldovan: Gave a summary of the proposed changes, which were editorial in nature.

Richard: Hearing no further discussion, this proposal will be carried over to the next Sub-workgroup meeting.

EC-C405.13(3)

Ben: This proposal is similar to Bill's EC-C405.11.1 for EV readiness in commercial spaces. He is happy to carry over for continued discussions outside of the Sub-workgroup.

Andrew: Asked if DHCD staff had prepared a summary of the proposals, comparing the similarities and differences.

Richard: No, DHCD staff has not done that.

Andrew: Is wondering if there is a way to reduce the number of proposals or possibly combine some.

Richard: That could be worked out between proponents or the proposals could all go through. DHCD, however, has been directed to put something together for the BHCD to consider, so that draft will go forward.

Bill: He is willing to work on this however it unfolds. A common draft would work for him.

Steve Shapiro: His concern is mostly over the number of spaces used.

Richard: This proposal will be carried over to the next Sub-workgroup meeting.

EC-C405.13(2)

Richard: This is the proposal that the DHCD staff put together based on the directive from the General Assembly.

Jeff: This is a conversation starter and one of several other similar proposals around EV charging spaces.

Bill: Thanked Jeff for the explanation, though there are some parts of this proposal he is not clear about. Further discussion for a common plan among stakeholders would be ideal.

Richard: This will be carried over until the next Sub-workgroup meeting.

Steve Shapiro: Mentioned that he will not be able to make the next Sub-workgroup meeting, and wanted to know if the conversations could continue until the June workgroup meeting.

Jeff: Conversations can continue beyond the Sub-workgroup meeting until the Workgroup meeting in June.

{BREAK 11:12-11:20}

EC-C502.3

Ben: This proposal expands the efficiency credit section to include alterations and additions. That would allow a flexible way to encourage efficiency in commercial alterations and additions.

Eric: RECA supports this proposal. For a minimal amount of energy efficiency upgrade, in a substantial enough addition, it makes sense to go beyond what is required in the code.

Steve Shapiro: Asked Eric to explain what he meant by things going beyond what's required by the code, and what size would a substantial addition be?

Ben: The base code requires that design professionals select measures from the points table that would achieve a certain amount of points. Additions and alterations are not required to use the table, so they have 2.5% less efficiency required. This would require selection from the tables to bring up to commercial grade. There are many exceptions to the size of the additions in C503.

Steve: How will this correlate with the existing building code?

Ben: Is open to putting it wherever it should go.

Richard: There would need to be a pathway from the existing building code to this code.

Bill: Supports this proposal.

Richard: Asked Ben if he wanted to carry this over so they can look into the existing building code for reference. DHCD will assist.

Ben: Yes, he would like to carry over.

Richard: This proposal will be carried over to the next Sub-workgroup meeting.

EC-C503.3.2

Ben: This proposal is similar to the residential proposal, but it is the commercial version. New equipment and alterations would need to meet criteria for new buildings if the renovations are substantial enough.

Steve: Thinks this also needs to be coordinated with the existing building code.

Richard: This one may be more straight forward than the others. DHCD will help to correlate if the group agrees to the language.

Bill: Supports this proposal.

Richard: Hearing no further discussion, a vote resulted in Sub-workgroup members Eric, Bill, Steve Shapiro and KC showing Thumbs up. Mike indicated his opposition. The Sub-workgroup will support this proposal.

Mike: Typed in the chat box asking who selected the Sub-workgroup members.

Jeff: DHCD staff selected the members based on prior years and participation and expressed interest. Mike (or anyone) can express interest to be considered.

Mike: Asked if there were any Sub-workgroup members who are Virginia domiciled energy providers: electric, home heat, propane, etc.

Jeff: Not at this time.

Mike: Expressed concern that he wasn't able to vote and that there was not representation from the industries he mentioned included as Sub-workgroup members.

Richard: The Sub-workgroup supports this proposal and Ben would like the group to be listed as a co-proponent.

Steve: Commented that his thumbs up vote was based on how it correlates with the existing building code.

Richard: DHCD will work with Ben to make that update.

EB805.2

Ben: This proposal provides for duct testing and sizing to be the same as for new construction.

Andrew: Asked if ben would carry over to continue discussions.

Ben: Yes, he would like to carry this over.

Richard: This proposal will be carried over to the next Sub-workgroup meeting.

EB805.3

Ben: This proposal is for additions to meet existing code requirements with a few exceptions.

Steve: Asked if Ben would carry this over to continue discussions.

Ben: Yes, he would like to carry this over.

Richard: This proposal will be carried over to the next Sub-workgroup meeting.

EB805.3(2)

Ben: This proposal can also be carried over.

Richard: This proposal will be carried over to the next Sub-workgroup meeting.

EC-C1301.1.1

Richard: DHCD received a request from the proponent to carry this over to the next Sub-workgroup meeting.

EC-C401.2(2)

Richard: DHCD received a request from the proponent to carry this over to the next Sub-workgroup meeting.

EC-Appendix CB

Richard: DHCD received a request from the proponent to carry this over to the next Sub-workgroup meeting.

RB311.1

KC: Worked on this proposal with the building code official of Montgomery County, who noticed that item #6 in this section used the word “material” which was limiting. They added the words “provisions and” to be more inclusive. Other building code officials they spoke with agreed to this change.

Andrew: Why did Montgomery County have a problem with the language?

KC: The material referenced used to be just insulation, now there are additional materials. This includes the other materials.

Andrew: What are some examples of other materials?

KC: Testing results, for example. Other Counties supported this.

Ross Shearer: What is item 6? What are these provisions and materials? It’s not clear.

Andrew: Was door testing or duct testing the example given?

KC: Yes, officials would like to see the test results, which isn’t actually a material.

John: Typed in the chat box:

John Ainslie: Test reports are not part of a list of minimum inspections even though they are required for C.O.

Andrew: Would like to know more specifically what building officials want. Aren’t test results already provided?

Mike: Asked DHCD if there are any other codes amended this year in response to the request of one building official.

Richard: Not that he recalls off the top of his head. Proposals come from a wide array of proponents, ranging from an individual to associations or a group of proponents.

Bill: Concealment is a problem. If it bothers building officials they should inspect before concealment occurs. He supports this proposal.

Andrew: Can DHCD show where there are tests required to be provided now?

Richard: Yes, throughout the code. In this section, it may be just a change in language here to be inclusive.

KC: Yes. This was done to be fully inclusive. She doesn’t mind reaching out for more examples or more building official support. She is fine with carrying this over to the next meeting.

Richard: This proposal will be carried over to the next Sub-workgroup meeting.

Assignments and next steps:

Richard: There are several proposals that will be discussed outside of the Sub-workgroup before the next meeting to try to get consensus. The Sub-workgroup will meet again on 5/19 as the final time before the June full Workgroup meeting.

Bill: Asked if some people wanted to meet to discuss EV proposals now (after this Sub-workgroup meeting), since the meeting was originally scheduled to go until 2pm.

Steve: He is ok to meet after a lunch break. He reminded the group that he still won’t have AOBA and VAMA responses yet, but he’s willing to discuss the issues.

Ben: Typed in chat box, that he is ok to meet today.

Richard: DHCD will keep the Adobe Connect meeting space open for the discussions to continue between individuals who are interested.

Bill: Asked if anyone from DHCD could join to assist.

Richard: He can meet today. 1:30 seems to work for most interested parties. The Adobe meeting space will be open for people to return at 1:30 and discuss the carried over proposals further.