

**Energy Sub-Workgroup  
First Meeting Summary  
Date: July 9, 2025  
Location: Virginia Housing Center  
Time: 10:02 AM – 2:37 PM**

**Attendees:**

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

- **Jeff Brown** – Deputy Director, Division of Building and Fire Regulation
- **Florin Moldovan** – Code and Regulation Specialist, State Building Codes Office
- **Paul Messplay** – Code and Regulation Specialist, State Building Codes Office
- **Chris Scott** – Code and Regulation Specialist, State Building Codes Office
- **Rajan Engh** – Training and Development Specialist, Virginia Building Code Academy
- **Chase Sawyer** – Policy and Legislative Services Manager

**Study Group Members:**

- **Steve Shapiro** – Virginia Apartment Management Association, Apartment & Office Building Association of Metropolitan Washington
- **Sydney Roberts** – Southeast Energy Efficiency Alliance
- **Mike O'Connor** – Virginia Propane Gas Association, Virginia Petroleum and Convenience Marketers Association
- **Corian Carney** – Independent Alliance of the Electrical Industry, VA Chapter
- **Dennis Hart** – Virginia Plumbing and Mechanical Inspectors Association
- **D.A. Pierce** – Virginia Building and Code Officials Association, Energy Committee
- **Chelsea Harnish** – Virginia Energy Efficiency Council
- **Stuart Nuckols** – Viridian, Sitting in for Andrew Green
- **Mason Trimble** – Virginia Department of Energy
- **Bill Penniman** – Sierra Club, VA Chapter
- **Mike Rhodes** – Polyisocyanurate Insulation Manufacturers Association
- **Eric Lacey** – Responsible Energy Codes Alliance
- **William Drumeller** – Responsible House

- **Hana Nguyenky** – American Institute of Architects, VA Chapter
- **Sarah Thomas** – Virginia Association for Commercial Real Estate
- **Andrew Clark** – Home Builders Association of Virginia

#### **Interested Parties:**

- **Nicholas Bowles** – Building Official, Nottoway County
- **Kyle Kratzer** – Virginia Building and Code Officials Association
- **Mike Hamilton** – Arlington County
- **Bill Riggs** – Viridian
- **Bob Shippee** – Virginia Citizen
- **Susan Stillman** – Virginia Citizen
- **Jason Vandever** – North American Insulation Manufacturers Association
- **Monica Rokicki** – Better Building Works

#### **Purpose**

The Energy Sub-Workgroup convened as part of Virginia’s 2024 code development cycle to review and discuss proposed changes to the state’s energy code provisions. The meeting brought together a diverse group of stakeholders—including state agency staff, builders, advocacy groups, code officials, industry representatives, and citizens—to collaboratively examine energy-related code change proposals prior to deliberations by the General Stakeholder Workgroup and consideration by the Board of Housing and Community Development.

#### **Background**

Jeff provided an overview of the code development process, the background and development of the base documents, and examples of the types of changes shown in the base documents. Specific examples of changes related to energy were provided.

#### **Individual Code-Change Proposals**

##### **REC-R402.1.2(1)-24 – Maintain R-60 Attic Insulation**

- Eric – Provides an overview of the proposal.
- Bill P- Envelope insulation is especially important given the lifespan of buildings. Maintaining the current level makes more sense than rolling it back.

- Monica - R-60 is blown-in cellulose. Once that insulation is disturbed, it can get compressed. The gain from R-49 to R-60 is negligible.
- Jason - Efficiency folks had their eye on electrification; builders had their eye on ceiling insulation. Builders got the weakening (amendments); efficiency folks didn't get anything.
- Mike H - Resiliency is important. If power goes out during a heat wave, you'll be glad you have a good thermal envelope.

::Separate Discussion::

- Sydney – Do we have a sense, everything else being equal, of what the energy cost impact of this change might be?
- Eric – It's not huge overall. It's a percent or so overall in terms of efficiency.

::Separate Discussion

- Jason – It's not significant if you're following straight prescriptive. Going from R-49 to R-60 is not the biggest bang for your buck.
- Monica – It's not even one point on a HERS ERI score.
- Mike H – We're talking strictly, in this discussion, energy savings and cost savings, but resilience is important for the health, safety, and welfare of the public. Power outage during a heatwave allows passive systems to keep functioning while active systems aren't. It's not apples to apples.

#### **REC-R402.1.2(2)-24 – Wall Insulation / Continuous Insulation**

- Eric – Provides an overview of the proposal. Currently, we allow 75 % more heat flow through an opaque wall. Looking to eliminate that.
- Steve - What's the effect on framing members, particularly in Climate Zone (CZ) 4?
- Eric - You can still use 2 × 4 framing; continuous insulation (ci) is an option.
- William - Love more efficiency but ci isn't a simple install. Strikes me the simplest way is larger framing members.
- Monica - If there's ci it really needs to be R-5 minimum; otherwise, you get thermal bridging... Mixed-humid climates need vapor-open walls.

Support roll-call – Sydney, Chelsea, Naima indicated “support,” Steve “not in favor,” Andrew reserving judgment pending full package, Monica “not in favor due to R-30 wall insulation requirement.”

- Andrew – (Standing comment for all energy proposals) Our goal is to look at all of these proposals in totality and run them against our members’ interests, not only considering the upfront cost impact. With regard to the upfront cost impact, the General Assembly has emphasized that we cannot put up barriers to folks even being able to “get to the dance floor” when it comes to housing. When builders and developers go before the Board of Supervisors, they don’t care what the payoff is for seven homeowners over 100 years. They are focused on getting people into houses now. We need to consider that local electors want that lower initial cost. It’s not opposition to increased efficiency; it’s that we’re getting hit on both sides. We’re not vehemently opposed unless something unexpected pops up.

#### **REC-R402.1.2(3)-24 – New Optional Roof-Insulation Path**

- Jason – Provides overview of proposal. This just adds an additional compliance option for constructors.
- Sydney - Are these values equivalent to R-49/R-60?
  - Jason - Equivalent to the 2024 as published; if VA stays at R-60, we’d ratchet this down.

Support role call: Monica, Sydney, Eric, and Bill P support. No opposition expressed.

#### **REC-R402.4.1.2- 24 – Air-Leakage (Blower-Door)**

- Eric - Proposal removes the VA-specific air-leakage rate amendment, moving from 5 ACH to the national 3 ACH target.
- Monica - Very rarely do homes we test fail 5 ACH; many are at three or lower. Supports.
- Andrew - Are other states seeing downsides to 3 ACH? At some point, do you over-correct?
  - Eric – Worked with Maryland builders two cycles ago, and they were concerned with coming down to 3 ACH. We came up with a solution using the performance path to allow them to go up to 5 ACH, which became known as the ‘Maryland Compromise’ that made it into the code.
  - Sydney – Can try to get some data on performance across states to bring to a future meeting. SEEA does energy code field studies, and the data is dated, but it might be worth looking at. Important to keep in mind that if we pull on a string here, it impacts a string over here. We just had a conversation about increasing wall insulation values. If the process leads to better insulated

walls and we don't also decrease infiltration, then we're going to end up with mold, mildew, and rotten walls. They need to work on parallel paths. Spray foam is obviously one path, but there are a lot of other techniques used in the Southeast.

- Andrew – The field studies would be helpful.
- Chelsea – That field study was conducted prior to the requirement for blower door testing. While the code permitted a maximum air leakage allowance, we still had visual inspections and so that data was used to help us push for blower door testing for air leakage, which we now have. So that data would be outdated.
- William – We test a lot of houses and I will tell you that conventional foundations with fiberglass all the way around are testing 4 ACH and into the 5's. A lot of the builders that we encounter are upset with the current code requirements. I would love to see a 3 ACH requirement because those are all spray foamed houses. Spray-foamed houses always test 2.5 ACH or less. We tested one the other day at .7 ACH. I would predict a lot of pushback from Andrew's group for this. As a practical matter, it has been very difficult for builders to get up to speed. I'm a 30-year general contractor so I sympathize with where they are coming from. I like what Eric is trying to do, but I'm telling you, from a practical matter it might be tricky.
- Bill P – Supports Eric's proposal. The 3 ACH requirement has been around since the 2012 IECC. They haven't adjusted it because it's too hard to meet. The IECC provides additional flexibility now, so you can get by with 4 ACH when using the Simulated Building Performance path or the ERI path. It's time for Virginia to catch up.
- Eric – Correcting something I said earlier, the 2024 IECC allows you to trade up to 4 ACH, not 5. The 2021 allowed 5 ACH.
- William – Just based on what I see and the learning curve from these builders out there, it strikes me that 4 ACH is the next stop. The builders are happy now, they are passing, and they are learning. If you go straight to 3 ACH now, that seems like a lot.

#### **REC-R405.2-24 – Performance Path / Trade-offs**

- Eric – Provides an overview of the proposal. This is more complicated because we're dealing with the performance path. Several moving parts that have to work together. We can't change the multiplier without changing the trade-offs. It may be helpful to have DOE help us with the correct multiplier. The 2024 IECC performance path takes us in a very different direction.

- Monica – Duct location has the highest amount of impact on overall performance rather than even equipment efficiency. It cannot be overstated how important that is. To have that excluded seems counterproductive to me.
- Eric – I should have talked about the duct location as well. Totally agree that ducting indoors has a huge impact on efficiency. What happened in 2024 is that there's an assumption that you'll only put 75% in foundations with basements and conditioned spaces. Our concern is the amount of unearned credit that gets lumped in here. We're not trying to encourage the installation of ducts outside of conditioned space.
- Monica – Wonders if there is an option like including the ducts in conditioned space but not equipment.
- Steve – The reason statement reads, in part, "We're maintaining Virginia's current performance path approach to equipment trade-offs. That's true, correct?"
- Eric – Correct. Virginia does not give credits for performance path tradeoffs, such as the location of equipment. The only change, though, is that we are adding an efficiency improvement in the multiplier, which we set to mirror the prescriptive path.

#### **REC-R408.2.9-24 – Appliance vs. Envelope Credit**

- Eric – Provides an overview of the proposal, prevents double-counting appliance efficiency and envelope efficiency.
- Bill P - Appliance efficiency is not equivalent to envelope efficiency; the envelope lasts the life of the building.
- Mike - Trading off thermal efficiency reduces passive survivability.

#### **EC-C402.4.2-24 – Skylight Exception for Data Centers**

- D.A. - Proposal exempts the "room or area where server cabinets are housed" from skylight daylighting requirements.
- Dennis - If a data center changes occupancy later, would skylights be required?
- D.A. – Change of use wasn't factored; this is about new construction.

::Separate Discussion::

- Steve – Wouldn't it be beneficial to look at what else might fall under this exception? So why not, before this goes too much further, think about what other things might fall under it?

- D.A. – Agrees. This could apply to other things. Open to modifying this to other spaces where people aren't occupying the space.
- Hana – The list of these spaces is based on square footage, not occupancy. Should this code be reworded to be about occupancy vs. square footage?
- D.A. – Yes. Agrees that this could be broadened to be more encompassing.
- Bill P – Understands the rationale for data centers since they add a huge amount of heat. If you keep it simple, it's easier not to impose restrictions than if you start trying to think of all other buildings that might benefit from special treatment. I can understand the heat production problem.
- D.A. – Wants to clarify that the proposal is just made for data centers and our intent is to keep it that way. If others in the group want to add another space, I am not opposed to that, but this proposal will stay just for data centers.
- Bill P – And what occupancy are these?
- D.A. – S.
- Kyle – They can be S, F, B. It's up in the air with what designers are calling them. There may not be uniformity across the Commonwealth. And this is a national problem, not just a VA problem. To D.A.'s point, we know there's a problem with skylights in data centers now, which is the point of this proposal. We want to make sure that before we try to expand this to potential problems, we address a known issue instead of a potential one.

General consensus: broad support among Bill P, speaking on behalf of himself, Dennis, Sarah, and Hana.

### **Other**

- It was noted that DOE has performed a cost-analysis specific to Virginia as compared to the 2024 IECC, but it has not yet been published.
- Mechanical ventilation “outside-air to return-duct” workaround – Suggested by Monica as a good subject for discussion by the various stakeholder groups. Participants were invited to further review the matter and explore potential solutions.
- Long-term durability & human behavior – Nicholas raised the subject of real-world data on 100-year performance. Participants shared their experience and provided feedback

### **Closing & Next Steps**

- Staff will circulate a written summary and post materials online.

- Members were encouraged to continue offline discussions and to submit any potential floor modifications to staff before the general workgroup meeting.
- Next meeting date TBD.