

## Building Energy Code Study Committee Meeting #2 Notes

Department of Public Service, GIGA Conference Room, 112 State Street, Montpelier

Virtual via Teams Meeting

August 8, 2023

9:30 am – 12:00 pm

### Roll Call:

#### Members:

Senator Chris Bray  
Representative Scott Campbell  
Sandy Vitzthum  
Craig Peltier  
Richard Faesy  
Kelly Launder  
Mike Desrochers  
Matt Sharpe  
Jim Bradley  
Tim Perrin  
Bob Duncan  
Matt Musgrave  
Ted Brady  
Chris Company  
Jason Webster  
Chris Burns

#### Non-members:

Barry Murphy  
Keith Levenson  
Richard Faesy  
Liz Bourguet  
Ben Moffatt  
Peter Tucker  
Ellen Czajkowski  
Chris D'Elia  
Walt Adams  
Michelle Farnham  
Andrew Brewer

#### 1. Approval of Meeting Minutes

- Change to "Meeting 1"

- Additional administrative note: Richard is stepping down from the committee as EFG has been hired as the contractor for this work. Jim Bradley is replacing him on the committee.

2. Dovetailing better energy code compliance with current practice - Building Codes/Energy Codes; Commercial/Residential
  - Kelly reviews what is currently in place:
    - Administration
      - Code adoption and updates/ education and training:
        - Residential and commercial energy code is updated every 3 years. The code adoption process starts with stakeholder meetings and an advisory committee, then a legislative rule adoption process. The process includes training on new codes. EVT also does energy code trainings. Trainings are recorded and posted online
        - Energy code assistance center provides ongoing training as well
      - Certification- builder needs to self-certify that the building meets the standard
        - PSD doesn't review plans, or do record keeping or enforcement
      - Jim Bradley – according to the Secretary of State's (SOS) builder registry, there are 734 contractors in the state. That includes 275 independent and 479 businesses. Others are waiting in the wings
        - Laura at the SOS office is his point of contact. Jim says their intent [at the Office of Professional Regulation (OPR)] is to address fraud
        - [9:52 AM in chat] Jim Bradley- OPR/Secretary of State Laura Layman Lead for the Contractor Registry. Judith Roy is a primary office contact.
        - Scott Campbell – can OPR facilitate voluntary certifications or trainings?
        - Jim – that was discussed, but they said contractor registry was not about certification. They will discuss in coming weeks
  - Mike Desrochers reviews current practice at Division of Fire Safety (DFS)
    - They follow national model [building codes](#) (NFPA and IBC model codes, looking to update to 2021 versions)
      - They're doing a housing study now on how they could reduce the cost of housing
      - They don't have experience in energy efficiency world
    - Licensing/certification:
      - They license plumbers and electricians
      - They certify trade professions. For example, oil and gas technicians, sprinklers installers, and emergency generator installers. Most are done through third party certification. They adopt an industry-recognized certification
    - Education/ training:
      - They also approve education
      - Their ability to offer training directly has been diminished
      - How much time does it take for training/ certification?
        - Mike can provide a [fact sheet](#) about licensing information for every trade profession that they regulate. Plus, they require certain amount of continuing education
    - Plan review:
      - Plan submittal – they review all plans for commercial projects and residential buildings larger than 3 units. There is no architectural stamp required for a 3-plex and down
        - They receive plans electronically and hard copy. Their average turnaround time is 15 calendar days and their goal is less than 30 days

- He can provide more information on plan review valuation and on the number of permits submitted
  - Some municipalities do their own plan review
    - Do you set a standard for what the plan review should be?
    - Municipalities must adopt the same standard as them and must attend the same trainings. Some municipalities can be slightly stricter. He can provide a list of municipal agreements
- Has there been an issue of conflict between codes? There have been a few occasions of conflicting fire code and energy code but rarely
  - Kelly - PSD has received some conflicts. The fire and safety code trumps the energy standard
- They review all new commercial construction and remodeling for projects more than three units. Projects under \$200k are turned to the field staff and permitting right on site
- They're not able to do as thorough of an inspection as they'd like to (because of capacity)
- There are some municipalities that want to take on plan reviews locally along with the associated permit fee revenues. To do so requires an agreement between that municipality and DFS. DFS is currently working on a memo that puts a hold on these MOU agreements since they can't afford to turn over their revenue to municipalities right now. Winooski, Woodstock, Bellows Falls, Williston have shown interest in municipal agreements
- They do variances. Don't have variance board anymore. Regional managers do variances
- Appeals – applicant has the right to appeal directly to him
- Record keeping - They have a custom database. They have an RFP out for a new database (for example, automated communications)
- Enforcement
  - They can use stop work orders. This is if projects don't have permits or if a project is in a state of non-compliance. This is reviewed on a case-by-case basis
  - Happens rarely because most of the time, when they ask people to submit the paperwork or to make building changes, they do
  - Stop work order often comes from inspectors out in the field. Or if an electrical inspector asks if they are aware of a building
  - Hazard rating system is a way for them to track buildings with hazards, using a 1-5 index scale
  - Remediation – they have more success with voluntary compliance. When they have a good relationship with people, they aim to do the right thing.
  - They are tasked with rental enforcement and are trying to get program running now and anticipate this will be a challenge
  - They can do administrative penalties. For example, fines to landlords not complying. The intent is not to punish but to change behavior. There are appeal hearings. About 90% of fines are paid, not appealed
    - Also, they do findings and orders – signed by commissioner – if there is a likelihood of going to court
  - They have authority to promulgate rules. Penalties are an example of them promulgating rules

- Suggest that energy code would need a priority system (for example, what is a serious violation and what isn't? Like the hazard rating index)
- They don't enforce anything on single family homes. Administratively they do smoke and CO alarms (paperwork)
- They have the authority to suspend licenses through action of their board
- Not sure how much of their budget it would take to include review of the energy code plan
- How many total staff do they have minus administrative people? They have four main plan reviewers for each district office.
  - Mike (via chat) - 35 Assistant State Fire Marshals not including management and admin staff

### 3. Lessons from other States

- Sandy sent documents around via email
  - Compared all 50 states' building energy codes and includes a written commentary from Sandy

### Findings from review of state building codes:

#### Findings: Commercial Buildings

1. 47/50 states have at least a suggested building code at the state level. 40/50 states adopt a statewide code. Most of the states who do not adopt a statewide code cannot; they are home-rule states.<sup>3</sup>
2. All states who have a standalone statewide energy code – except Vermont and California – have no statewide building code. Most of these offices of energy exist to advise code-making jurisdictions and/or to encourage/establish voluntary measures.
3. All states that have statewide building codes - except Vermont and California - integrate their energy code into building code with one authority. Even in California the building official collects energy code compliance documents.
4. The majority of states allow local jurisdictions to adopt more restrictive codes. Some states do not allow this in order to adopt new codes faster and for more uniform building standards.

#### Findings: Residential Buildings

1. Nearly all jurisdictions in the United States adopt some level of residential building code. Only Vermont and Indiana specifically exempt small-scale residential construction. Even if it's not enforced, this is important because the state or local government establishes a uniform standard of care<sup>4</sup> for their jurisdiction.
2. All jurisdictions except Vermont and California integrate their energy code into building code with one authority. Even in California the building official collects energy code compliance documents. In other words, if any jurisdiction in most of the U.S. is administering a building code, they are also administering the energy code.
3. Two states close to Vermont, New Hampshire and Maine, have a statewide building code (including energy) but do not require towns to enforce the code. This means that even if a building is not inspected or certified, it is still required to meet all standards. This is important for training builders and for common understanding between owners and in court. In New Hampshire, the State Fire Marshall has jurisdiction over all buildings not enforced at a local level.
4. In the detailed comparison:
  - a. Performance-based paths of compliance are optional in all states compared, except in California some systems must be inspected (ducts, air filters, cooling systems, ventilation and exhaust systems).
  - b. In all other compared states, certification of energy code details is done by the building inspector or by a certified inspector whose certification becomes part of the certificate of occupancy.

### Recommendations from Sandy:

**Statewide Authority – Some of this must be done by statute; some may be done in Agency rulemaking.**

- 1) Confirm the scope of authority that the authority having jurisdiction has over all new and existing construction in Vermont, all building types.
  - 2) Rename the Division of Fire Safety the Division of Fire and Building Safety (DFBS), and invest all authority over building codes – including energy codes – in it.
  - 3) Create an Energy Code Advisory Board to DFBS; allow Public Service to have significant participation and influence on this board.
  - 4) Extend DFBS authority to all residential structures. This means adopting an amended version of IRC.
  - 5) Make administration and enforcement of IRC voluntary by town (NH model), with approval by DFBS. If a town does not enforce, no one needs to enforce (NH and ME models).
  - 6) Encourage all DFBS fire marshals to be trained for energy code project review and inspections, but allow DFBS to make its own rules.
  - 7) Develop a statewide training program for municipal officials and builders, possibly making use of vocational/technical centers.
  - 8) As #6 becomes established, make residential contracting a trade and move its regulation to DFBS.
  - 9) Create and maintain a statewide database following the ANR model of WW permit history for all properties.
  - 10) Write Vermont's base energy code with the smallest towns in mind. Offer a stretch code as a voluntary step up with incentives both for those municipalities and for building owners.
- Sandy proposes different tiers based on towns: tier one – Cities and Towns with Building Departments (voluntary choice); tier two– Cities and Towns with Residential Building Official (voluntary choice); tier three – Towns without Building Officials (default – mandatory if not filled above)
  - Ted Brady (via chat 11:05) - ... I noticed there were some questions about communities with zoning and communities without. Here are some stats: 54 towns have no zoning. 147 have unified zoning laws. 60 have just zoning. 7 have just subdivision. Hope that helps. Hope to hop on again...but no certainty.

**Legal considerations**

- 1) Require residential construction contracts to include a section confirming compliance with RBES and other building codes in the agreement, as applicable.
- 2) Make lack of a certificate of occupancy a title defect for building types and jurisdictions where they are required. (This may already be in statute.)
- 3) Make lack of an energy certificate a title defect for all new and renovated buildings in Vermont.
- 4) Eliminate the requirement for an energy certificate to be notarized.
- 5) Create a statute of repose in Vermont, even if it is conservative (10 years).

**Tax considerations**

- 1) Consider waiving an increase in property taxes for energy-related upgrades for a period of time, hopefully equal to the payback time for making the upgrades.
- Sandy developed recommendations in conversations with members of the VBRA (not officially from VBRA)
  - Scott Campbell– maybe we should include insurance people in the room
  - Jason Webster (via chat 11:16) - if as a state we adopt a code, but don't administer / enforce it, how are we protecting builders from clients that choose not to pay for code

requirements? How do we keep our builders from being sued by clients that flop, or future owners of that property? . . . . same question goes to the current energy code requirements?

4. Ideas for maximizing the value and setting achievable goals for the \$1 million in DOE funding for EFG
  - Richard walks through DOE funding:
    - DOE Announced \$90 million in energy codes awards on July 12: \$1 million for Vermont vs. \$5 million requested
    - Project team members include (EFG) (Project Lead), Vermont Secretary of State (including their Office of Professional Regulation (OPR)), International Code Council (ICC), Efficiency Vermont (EVT), Burlington Electric Department (BED), Vermont Gas Systems (VGS), and Vermont Association of Planning and Development Agencies (VAPDA)
    - Project development for DOE requested for August 11, with January 1, 2024 project start date
    - Tasks will include code administration development plan; energy professionals workforce; education, training and support; and project advisory committee
    - Currently in negotiations with DOE

#### Discussion:

- Communities will be getting funding for community resilience to recover from flooding. This could relate to building codes (not necessarily energy code)
- Kelly – would be good to coordinate efforts with EFG, OEO, EVT, and PSD. PSD is getting a formula grant and funding through SEP IIJA for workforce development. OEO has a training center award.
  - PSD can lead the coordination
  - ANR has access to funding for carbon reduction, which could be a tie-in
- Craig- envelope commissioning in itself is a huge thing to help advance this. It helps people understand what they need to do on a project
- Jim - envelope commissioning creates relationships with builders and is an educational opportunity
- Scott Campbell (via chat 11:44)- Echoing Craig's point on envelope commissioning, 3E Thermal's greatest impact is exactly this: having an energy consultant show up on site during critical phases of construction -- more than the incentive funding.
- Jim Bradley (via chat 11:48) - Agreed, and as RBES moves to using assembly U-Factors in lieu of prescriptive R-values, collaboration with Building Science people and builders become more important.
- Senator Bray – how will the DOE funding influence the work of this group?
  - Richard – this can be a resource for taking what this group (the Act 47 Study Committee) develops and moving it to the next step. The hope is that this group will outline the structure and then the grant can fill in the details
- Sandy – does the DOE funding have flexibility depending on authority model?
  - Richard – yes, it must be flexible
  - Sandy – there is a lot of interest from small towns in learning the latest envelope techniques. There is value in training people who people in town trust

- Chris Campany – this might be the last priority for small towns. There is a whole infrastructure around town planning in New York but we don't have that in Vermont
- Jason Webster (via chat 11:54) - I'd be careful about relying on "kind" people town-to-town to administer the building (energy is one) code. A new program needs to be straightforward, and a clear chain of command. Because eventually someone dislikes their local building inspector. And it's easier for them to cope (personally) with it when they are a cog in government wheel.

5. Transition from status quo – will be agenda item for next meeting

6. Stakeholder/Public comments

- Walt Adams – frustrated by cost of having fire marshal's office reviewing the plans
  - New code will need a lot of new paperwork to be displayed on buildings
  - Concerned that parts of the new code make it hard for builders to follow every step of the code
  - Concerned about costs of complying with code
- Next meeting is August 22
- Suggestion for the next meeting: discuss visions for code administration; prepare "pitches" to share at the next meeting