

Building Energy Code Study Committee Report Outline

1. Executive Summary
2. Introduction to RBES/CBES and compliance
 - a. Explanation of energy code **HISTORY – including how we got to this situation**
 - i. Enabling legislation of RBES/CBES
(<https://legislature.vermont.gov/statutes/section/30/002/00051>)
 - b. **EVALUATION OF THE CURRENT SITUATION**
 - i. **Less than 50% compliance based on 27 buildings (5 east of the Green Mountains); likely much lower compliance for RBES statewide. CBES 90% compliance based on audits? Include map of estimated compliance % county by county. Maybe make non-complying audits red dots on the map; complying audits green dots. I think an overlay of actual data over extrapolated percentages would be useful.**
 - ii. **Evidence of health/welfare risk especially in single family homes**
 1. Documentation: VT Digger article, example of the Essex house, etc (Jim Bradley and Chris West)
 2. OPR complaints since 4/1/23.
 3. Build on 2018 Sunrise report by OPR.
 4. AG CAP report
 5. Insurance claims report
 6. **MAKE AN EFFORT TO COMPARE WITH OTHER STATES**
 7. Right now OPR is not adjudicating for competence, only fraud.
 - iii. **Lack of workforce training**
 1. Quantify number of homebuilders who are not familiar with RBES
 2. What trades are now required to do energy code CEUs? (details)
 3. AGC training facility does serve whom?
 4. Weatherization training spotty, not coordinated
 5. Tech centers – Essex failure (Jim Bradley)
 6. No simple, statewide certification that OPR can use in their database.
 - iv. **Confusion between energy codes. No authority to interpret RBES/CBES.**
 1. Examples from AIAVT, AGC, Public Service?
 2. Variance process for both CBES and RBES non-existent.
 - a. Number of cases submitted for both.
 3. Appeals process non-existent.
 - a. Number of cases submitted for both?
 - v. **Municipal authority not clear**
 1. CBES mechanism is clear from DFS to municipalities
 2. RBES mechanism is not clear. Missing ability to defend in court.
 - a. Include 3 statute passages.
 - vi. **No consistent, statewide way to track projects and document for future owners.**
 1. **Map of Vermont by county showing number of RBES certificates filed with the state, hopefully in 5-year increments to show trajectory.**
 2. **Description of what is now done for CBES.**
 - a. **DFS: are certificates in the project file?**

- b. How many certificates on file at PSD?
 - 3. Description of what is now done for RBES
 - a. Survey xx towns; how many certificates?
 - b. How many certificates on file at PSD?
 - c. Background on OPR builder registry (include up in ii.7?)
- 3. COMMITTEE CHARGE.
 - a. Short history: DOE grant, LCAR hearings.
 - b. Act 47
 - i. Three stated objectives in Act 47:
 1. Consider and recommend strategies to increase awareness of and compliance with the RBES and CBES, including the potential designation of the Division of Fire Safety (DFS) in the Department of Public Safety as the statewide authority having jurisdiction for administration, interpretation, and enforcement, in conjunction with DFS' existing jurisdiction, over building codes;
 2. Evaluate current cost-effectiveness analyses for the RBES and the CBES, whether they include or should include nonenergy benefits such as public health benefits and the cost of carbon, and how that impacts the affordability of housing projects and provide recommendations; and
 3. Assess how the building energy codes interact with the fire and building safety codes.
- 4. "Assess how building energy codes interact with fire and building safety codes."
 - a. Public Buildings
 - i. DFS has simple, effective oversight over public buildings (DEFINE FROM STATUTE). This includes single family homes that are rented. There is a clear chain of authority from the Legislature to municipalities who administer building codes.
 - ii. DFS regulates all other aspects of construction except energy: fire safety, structure, mechanical, electrical, plumbing, accessibility, elevators, chimneys (DFS: what is missing?) Marshals are trained in all aspects but typically accept certifications for specialized systems.
 - iii. DFS has four regional offices and a system for answering questions, variances, and appeals. Cases inform future code development.
 - iv. DFS has received funding for a statewide building permit database. (DFS: what is its status?)
 - v. DFS regulates many building trades: electricians, plumbers, elevator installers, gas, oil, sprinkler, fire alarms, chemical suppression, fire sprinklers, chimney sweeps, generator installers.
 - b. Owner-occupied Single Family Homes
 - i. Vermont has a proud history of no regulation over single family homes (SFHs). Over time, some regulation has been required to address fire safety, fraud, and energy codes. Three agencies (Public Safety, OPR, and Public Service) regulate with a lot of gaps between. Coordination between these agencies has been minimal.

- ii. Vermont is the only state in the nation with no avenue for building code regulation at any municipal level. (FINISH CHARTS)
 - iii. The lack of a unified authority is the single most significant issue discovered by the committee.
 - 1. No clear sense of the “right thing to do.”
 - a. Calls to DFS when staff can only explain what is correct for other states.
 - b. Calls to Efficiency VT where there is no interpretation for specific situations.
 - 2. No coordination between trade education and OPR registration.
 - 3. No ability for OPR to adjudicate based on a regulation.
 - 4. No clear chain of authority for municipalities to administer energy codes.
 - 5. No consistent, statewide process for homeowner and builder to agree on scope of RBES-related work being done before construction.
 - 6. No simple way for the builder to close out that agreement and record completion with the State.
 - iv. This systemic, structural issue extends to the whole home, all building systems. While addressing other building codes is beyond the scope of the committee, under this charge the committee recognizes that a standard of care for residential building construction is missing in Vermont. Creating a standard and its authority would create a context for residential energy code and its authority.
5. “Consider the ... designation of the Division of Fire Safety (DFS) in the Department of Public Safety as the statewide authority having jurisdiction for administration, interpretation, and enforcement, in conjunction with DFS’ existing jurisdiction, over building **energy?** codes.”
- a. **COMMITTEE RECOMMENDATION:**
 - i. **CBES**
 - ii. **RBES**
6. “Consider and recommend strategies to increase awareness of and compliance with the RBES and CBES.”
- a. All public building permit applications to include a (stamped) energy code analysis.
 - b. Simple digital, online project initiation form for RBES (include Hanover NH as example).
 - c. Builder closes out form, certifying completion, in the database.
 - d. Eliminate the filing requirement in town records, or make it a requirement for owners.
 - e. Add statement to residential contracts (required by OPR) that they are subject to RBES with links & phone numbers.
 - f. Add statement to zoning permit applications that projects are subject to RBES and CBES with links and phone numbers.
 - g. Provide flyers at every closing that future renovations/additions are subject to RBES with links and phone numbers.
 - h. For a period of time, require tax bills to residential properties to include a flyer that future renovations/additions are subject to RBES with links and phone numbers.

- i. **Require power utilities to do the same?**
 - j. **Create 3 building types, 3 energy codes to break out small residential rented?**
 - k. **Require OPR to maintain a searchable database for residential contractors that includes a basic Vermont certification (voluntary) and is searchable by specialty and location.**
 - l. **Eliminate the notarization requirement for RBES certificates.**
 - m. **Change the start date of repose in RBES to date of substantial completion.**
 - n. Incentives and/or EEU involvement
 - o. Voluntary 3rd party certifications **Best used in the stretch code. Outside this report.**
 - p. Home Energy Raters: inspect and certify projects **Best used in the stretch code. Outside report scope.**
 - q. Include existing certifications (LEED, NGBS, EnergyStar Home, Passive House) at no cost to builder on the OPR directory. (Incentive for builder to get extra certification.)
 - r. Certificate of Occupancy **We prefer the upfront application that is closed out as a certificate by the builder. See “d” above.**
7. “Evaluate current cost-effectiveness analyses for the RBES and the CBES, whether they include or should include nonenergy benefits such as public health benefits and the cost of carbon, and how that impacts the affordability of housing projects and provide recommendations.”
- a. Recommendations of cost-effectiveness analysis methodology for RBES and CBES
- 8. SUMMARY OF RECOMMENDATIONS, PHASING, FURTHER STUDY.**
- a. Specify if there is consensus on recommendations
 - i. If there's not full Committee agreement, dissenting opinions could be included here
 - b. Recommendations to whom
 - i. Legislature
 - ii. Others
 - c. Timeline of recommendations **include discussion of phasing**
 - d. Potential costs of the recommendations
 - e. **Be clear about what this committee cannot cover – cost analyses, etc – and assert need along with a recommendation how to make future study committees happen.**
9. Appendix
- a. Purpose/ logistics of Committee
 - i. Six meetings. The first meeting was convened on July 14, 2023, and the final official meeting shall be held on or before October 31, 2023. Meeting minutes posted on PSD website
 - b. Committee members
 - i. List of committee members
 - ii. List of Act 47 committee member requirements
 - c. Link to PSD website for: Committee meetings notes, pitches (could be a matrix of pitches), resources and research on other states, cost effectiveness PowerPoint