

The following pages outline joint commentary and recommendations on specific topics raised during this summer's Thermal Efficiency Working Group discussions as they relate to improving compliance with the Vermont *Residential Building Energy Standards* (RBES). These comments summarize a consensus position supported by the signing members listed below. The comments are offered as guidance and possible direction for consideration.

We support a goal of achieving the federal minimum of 90% compliance with Vermont energy standards for residential building construction and 100% compliance with certificate filing/posting as soon as possible. We feel that the homebuilder should be responsible for construction quality and the homeowner should be responsible for filing the certificate. We see the path to compliance like a ladder, starting from the ground and local/site efforts moving up through authority and legal measures.

GROUND LEVEL: KNOWING THE ENERGY STANDARDS EXIST AND HOW TO APPLY THEM

1. Property Owners
 - a. Towns – either the issuer of permits or the town clerk – already need to hand RBES information to property owners when they initiate new construction or a major renovation.
 - b. The Public Service Department (PSD) and their designated agents already offer help with interpretation.
2. Homebuilders
 - a. S.163, the current bill to create a statewide registry of builders is a key step to recognizing who builds in Vermont and knowing how to reach them.
 - b. The registry will list builders and certifications they have earned, creating an incentive for voluntary certification.
 - c. The PSD along with their designated agents and other groups should continue to increase training opportunities for builders, designers, and other professional building trades.
 - d. While we believe mandatory builder certification is preferable, we recognize voluntary registration is a good compromise for Vermont.

FIRST RUNG: RBES CERTIFICATES

1. Nature of the certificate (certifies compliance with RBES)
 - a. We recommend responsibility for signing and filing/posting the certificate move to the property owner who is making changes to an existing dwelling or building a new one. This is the individual who is ultimately responsible for the property and its title.
 - b. We recommend that the certificate must be completed and certified by a certified individual.
 - i. It is best practice to use a third party. More than 130 licensed inspectors exist in Vermont who are already properly trained in building science and audits (including blower door testing).
 - ii. We recommend that certified builders may self-certify their own buildings.
2. Goal: 100% filing/posting statewide
 - a. We recommend that upon completion of a project, before occupancy, the property owner must (1) post the energy certificate in the home, (2) file the certificate in Town records, and (3) file the certificate with the State via a designated town official.
 - b. We recommend that the Thermal Efficiency Working Group, in collaboration with the Vermont League of Cities and Towns (VLCT), designate a town official in every one of Vermont's towns to be responsible for (1) receiving energy certificates and passing them on to the State, and (2) annually cross-checking received certificates for new

construction against additions to the town's Grand List. Cross-checking could be waived for towns that issue certificates of occupancy.

- c. In addition to the fee associated with filing in town records, a new fee would be charged by the designated town official. A portion of this new fee would pay for that official's time. A portion would go to the State to maintain a database.
3. One task of the Thermal Efficiency Working Group will be to clarify the roles and responsibilities for all parties: builders, homeowners, market-based certifiers, town officials, and an Authority Having Jurisdiction (and its auditors).

SECOND RUNG: STATEWIDE DATABASE

1. We recommend a statewide online database be created for energy certificates. Two options worth considering:
 - a. This database could be based in a non-profit like HELIX (Home Energy Labeling Information Exchange), run by Northeast Energy Efficiency Partnership (NEEP). HELIX is already tied into the real estate industry's MLS database, run by NEREN.
 - b. The database could be state-owned. One example is the Agency of Natural Resource's wastewater permit database. HELIX and MLS could then extract data from the database if needed.

THIRD RUNG: AUTHORITY HAVING JURISDICTION (AHJ)

1. There needs to be an authority who receives energy certificates, oversees the statewide database, and reports to higher authorities about statewide compliance.
2. This authority should be supervised by the agency charged with promulgating and enforcing the energy code.
3. We recommend this authority also be empowered to resolve conflicts between energy codes and other building codes and/or best practice as well as to grant waivers.
4. We recommend that there be a similar authority for commercial construction, and that they be physically located in the same office building.
5. We recommend this person and associated staff have a strong background in building science.
6. We recommend this AHJ be part of State government, not part of a private organization. They need to be under State jurisdiction for database and administrative continuity as well as security. Further, private organizations do not have enforcement authority for other Vermont building codes.
7. We recommend the AHJ be under the Division of Fire Safety (DFS).
 - a. For commercial, all the other building codes are administered by DFS so it absolutely makes sense to house a commercial energy AHJ with their counterparts.
 - b. DFS is the enforcing body for all other building codes in Vermont.
 - c. IN THE FUTURE, if there is ever a structural code for single family homes in Vermont, DFS would probably oversee and administer it.
 - d. If commercial and residential are combined into one AHJ, the staff supporting the energy codes should be located in or with DFS.
 - e. If there is a separate residential AHJ, it makes sense to have that staff in the same building as the commercial staff. The two people or groups can share information with each other. The residential AHJ would also benefit from being around people who understand structural, mechanical, and fire safety issues and construction in general.
8. We recommend that the Division of Fire Safety be made responsible for rulemaking and promulgation of Vermont energy codes.
 - a. We note Vermont's energy standards began as tools to meet energy policy goals before national standards existed. Now our energy standards are based on the International Energy Code (IECC), a publication of the International Code Council (ICC). The base code is adopted by many states and amended by each state as needed. The IECC is updated regularly and is coordinated with other building codes which the state of Vermont and some Vermont cities have adopted, such as the International Building Code (IBC). We

also note that only building officials, such as those at the Department of Public Safety's Division of Fire Safety (DFS), may be voting members of ICC. This further makes sense because DFS promulgates all other Vermont statewide building codes.

- b. Because energy policy is an important part of the energy codes, we recommend that the Public Service Department continue to play a very strong role in the evolution of the energy standards. We note that some funding for energy code development comes through the Federal Department of Energy. Perhaps this funding would continue to underwrite the evolution of Vermont's energy policies and the development of specific objectives, which the Public Service Department would translate into specific recommendations for amendments to the IECC.
9. We recommend that the funding for the residential AHJ come from the filing fee described in (2)(d).

FOURTH RUNG: ENFORCEMENT

1. We note that compliance is more about construction quality than filing itself.
2. Periodic audits (called market assessment studies) are now conducted by the Public Service Department, but without enforcement authority.
3. We recommend that the AHJ be empowered to conduct periodic audits statewide to ascertain levels of compliance with construction standards.
4. This AHJ should be empowered to enforce the standards. Possible actions include removing the builder from the State registry.
5. Only state officials can have such enforcement power, and for this reason the AHJ should be a state employee. Mike Desrochers (DFS Director) spoke of an important parallel: when a building is inspected before sale, a private inspector can only identify defects but cannot enforce them. More and more, DFS is being asked to inspect commercial properties before sale so that repairs can be enforced before a buyer takes ownership.
6. It is our understanding that the State, through an AHJ, could contract with private building inspectors to perform audits because inspectors are now licensed. Because they contract with the AHJ, the audit findings would then be enforceable.
7. **FUNDING:** Funding is now provided for periodic audits. This funding would move to the AHJ's oversight.
8. It has been suggested that third-party air leakage testers be "deputized" to report violations of RBES. We recommend that these professionals, as well as third party certifiers, be viewed more as mentors and supporters helping homeowners (who would hire them). Giving quasi-enforcement power to non-state employees is problematic, and it may discourage homeowners from hiring individuals who they know may report them.



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