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STATE OF VERMONT
HOUSE OF REPRESENTATIVES

September 2, 2020

To: House Committee on Government Operations, Rep. Sarah Copeland-Hanzas, Chair

From: Rep. Scott Campbell

RE: S.220, An act relating to professional regulation

Thank you for the opportunity to offer comments on S.220. My remarks concern Sec. 33, beginning on page 66 of the bill as passed by the Senate.

BACKGROUND

I have worked in the construction industry my entire life, as a carpenter, contractor, and building designer. For over 20 years, I directed energy efficiency programs directed at lower-income Vermonters, first at a regional Weatherization Assistance Program, and until recently at 3E Thermal, a statewide program that provides consulting services and incentives to owners of affordable apartment housing. 3E Thermal is a program of Capstone Community Action, funded primarily by RGGI and FCM¹.

In the latter role, I and my colleagues worked with architects, engineers, contractors, tradespeople in the field, building maintenance staff, as well as owners and property managers. This gave me a window on the level of understanding in the industry of buildings as energy systems. As a rule, it is not high.

What is commonly referred to as "energy efficiency" encompasses a range of tactics with impacts on nearly all components of a building as an integrated energy system. The study and analysis of those dynamics is the emerging field of "building science."

In summer 2019, I led an informal study group of the Climate Solutions Caucus known as the Thermal Efficiency Working Group. We held four hearings with stakeholders seeking input on ways to help Vermont's construction industry build and renovate buildings to higher performance standards. The hearings focused on four topic areas:

- Compliance and Enforcement
- Workforce Training and Certification
- Valuation in the Marketplace
- Standards Development and Housing Policy

A key point made by almost every one of the 32 people representing two dozen organizations was the need throughout the industry for more training in the basics and application of building science. The bill before you addresses this very point.

¹ Regional Greenhouse Gas Initiative and Forward Capacity Market, revenues from which make up the "Thermal Energy and Process Fuels" funds administered by Efficiency Vermont.

RECOMMENDATIONS ON S.220

Sec. 33 of S.220 stipulates an "education module ... [of] not more than two hours" regarding State and utility incentives, and updates to State energy goals and programs. The module would be required for new or renewed licenses for design professionals, property inspectors, real estate appraisers and brokers, and various tradespeople including gas and oil appliance installers, electricians and plumbers.

Inasmuch as many people in these roles are still are not aware of Vermont's two-decade-old mandatory energy code, Sec. 33 will at least serve to raise that awareness. But two hours is hardly enough time to scratch the surface of this complex subject.

If the Committee were considering changes to S.220, I would recommend tailoring and strengthening these stipulations, for example:

- architects and professional engineers should be asked to demonstrate a thorough understanding of energy code, since their work affects many different aspects of the building as an energy system;
- landscape architects, pollution abatement facility operators, potable water supply and wastewater system designers should demonstrate understanding of the energy code as it affects their part of the work;
- property inspectors and real estate appraisers should demonstrate familiarity with code requirements in general;
- real estate brokers and salespersons should at least know there are code requirements and where to point sellers and buyers to for more information; and
- gas appliance and oil burning equipment installers, boiler inspectors, electricians and plumbers should thoroughly understand energy code as it affects their work, and be familiar with interactions of their work with code requirements for the whole building.

Less administratively challenging, if also less tailored to need, provisions could be added to direct OPR and DFS to identify voluntary certifications administered by third-party organizations to demonstrate general competence in building science.

Also, building, electrical and plumbing inspectors are not mentioned in the bill, and they should be. As I understand it they are either employees of, or certified by, Division of Fire Safety.

DFS made clear in discussions last summer that they view their role as strictly ensuring the safety of buildings. They feel unequipped to enforce "energy standards." Yet, as alluded to earlier, components of a building interact in complex ways as a whole-building energy system. Windows, walls and ceilings affect air-tightness, which interacts with ventilation and affects contaminant levels including moisture and carbon dioxide, which affects mold growth, which affects people's health — as an example.

In short, the energy performance of a building *is* a safety matter, the more so as we build more "energy-efficient" buildings. It is incumbent upon everyone in the industry to understand basic building science, as well as State energy goals, incentives and programs, in order to build better, more durable, healthier and safer buildings, that are also more efficient.

I support Sec. 33 in S.220 as a start, but there is much further to go.