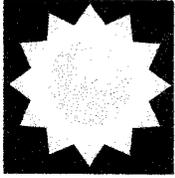


BUSINESS & LABOR

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Testimony of Dale Horton, NCAT, before the Senate Business, Labor, and Economic Affairs Committee regarding SB159 (Short Title: Revise energy efficiency and code adoption requirements in building codes).

Mr. Chairperson and Members of the Committee:

My name is Dale Horton. I am the Energy Program Manager at the National Center for Appropriate Technology (NCAT) with its headquarters in Butte. Before working for NCAT I operated a small architecture firm designing homes and commercial buildings in Montana. NCAT appreciates the opportunity to testify regarding SB159.

Residential and commercial building energy efficiency must play a significant role in any successful effort to improve our nation's energy security because they use over two-fifths of America's energy and nearly three-fourths of our electricity. Efficiency implemented now through energy codes will make a significant contribution to America's energy security for generations to come. Buildings often are used for over 100 years. Energy codes are critical because many energy efficiency measures can be implemented cost effectively only during initial construction.

Investments in more efficient buildings today not only improve occupant health and comfort, but they pay myriad dividends - stabilizing energy demand and prices for homes and businesses, forestalling the need for new power generation and reducing the need for imported energy - for our nation.

To limit energy efficiency measures required by the energy code to five years is to ignore the long term energy impact of our buildings. Establishing a five year simple payback requirement is short sighted. It would be harmful to homeownership by lower income citizens over the long term. The energy costs associated with operating a home are often sighted as one of the leading causes of foreclosure. Long term home affordability begs for greater energy efficiency at the time of construction not less.

Many building code related requirements impact the first cost of a buildings. But limiting energy code requirements is not an appropriate response to the current poor new construction market. All too often when a building construction bid comes in over budget the energy efficiency features are the first to be eliminated. The size of the garage, interior finishes, and floor area are often given higher priority by designers,

builders, and owners than energy efficiency because they take a short term perspective. The typical home is resold every seven to eight years. The energy code should take a long term approach to assure that the future owners and occupants of the building can afford to pay for future higher energy costs.

The task of determining whether a measure meets the proposed five year simple payback criteria is problematic in itself. There are almost thirty different electric utilities in Montana. Most have different electric prices and rate structures. There are also several fuel types (natural gas, propane, oil, wood) besides electricity that are used in buildings. How will the department deal with these multiple energy prices in determining payback? Most analytical methods for determining building energy efficiency measure cost effectiveness require developing prototypes. Energy performance software is then used to project energy use for each measure for each prototype. A cost estimate would also be required for each measure applied to each prototype. The number of building types required would be significant. Several types of houses would need to be analyzed (single story, two story, basement, crawl space, etc.). Several types of commercial buildings would need to be analyzed (schools, offices, retail space, warehouses, etc.). In other words by requiring that measures must pass a cost effectiveness test this proposed bill will significantly increase the cost and complexity of energy code consideration.

In conclusion I would like to make three points. First, the existing law should not be modified. The law is best left as it is.

Second, if the law is modified to address affordability then the phrase "affordability over the life of the building" should be used in lieu of the simple term "affordability" in Section 1 Paragraph 7.

Third, if Section 1 Paragraph 6 is to be modified the following language should be used:

(6) promote long term housing affordability with respect to construction standards by encouraging only those energy efficiency measures that the department can demonstrate will result in energy savings over a thirty year building life that exceeds the cost of a thirty year mortgage associated with the purchase and installation of any equipment or materials;

Thank you for the opportunity to offer testimony today.