



**Written Testimony of Donald J. Vigneau, AIA / Project Manager
Northeast Energy Efficiency Partnerships (NEEP)
For the Energy, Utilities & Technology Committee
Regarding Bill No. LD699 - An Act to Conserve Energy in Certain Commercial Buildings
March 21, 2011**

Chairman Thibodeau, Chairman Fitts, members of the Committee: on behalf of Northeast Energy Efficiency Partnerships (NEEP)¹, thank you for the opportunity to provide testimony on Legislative Bill LD 699, *'An Act to Conserve Energy in Certain Commercial Buildings'*.

NEEP is a regional nonprofit organization founded in 1996 whose mission is to promote the efficient use of energy in homes, buildings, and industry in New England, New York, and the Mid-Atlantic states through regionally coordinated programs and policies that increase the use of energy efficient products, services and practices, and help achieve a cleaner environment and a more reliable and affordable energy system.

NEEP has a long history of working on energy efficiency policies and programs in the state of Maine. Since its inception, NEEP has partnered with Maine utilities and a number of stakeholder organizations inside and outside of government on a variety of initiatives to increase savings from energy efficiency for residents and businesses in Maine. These have included regional collaborative projects to transform markets for energy efficient products and services, as well as complementary public policy projects. NEEP has managed to help states adopt new appliance efficiency standards and to develop, adopt and administer building energy codes and high performance school polices, among other measures.

Personally, I am a former State Building Inspector, a former local building official, and a licensed professional architect, with 50 years experience in the design and then the regulation of building construction. As an active member of the Energy and Certification Technical Advisory Groups (TAGs) to the TBECB, I am taking this opportunity to speak to the four sections of this bill that could have a positive impact in reducing building energy use in the state by preserving the process created by Maine in 2008 to adopt and administer the requirements contained in the Maine Uniform Building and Energy Code (MUBEC).

Why Building Energy Regulations are Important

The proposed legislation seeks to enhance energy conservation and self-sufficiency in Maine by several additions to your energy requirements already developed and being implemented.

Your legislation creating the Maine Uniform Building and Energy Codes (MUBEC) is already starting to stimulate the creation of jobs as the demand for both energy auditors and contractors who can construct and certify building performance stands to increase significantly. As the market's value of building energy performance increases, Maine will benefit in the form of greater energy independence and stronger local economies.

¹ These comments are offered by NEEP staff and do not necessarily represent the view of the NEEP Board of Directors, sponsors or partners.



Recognizing the need throughout the region to address opportunities to improve energy efficiency in buildings, NEEP has worked with the Technical Building and Energy Codes Board (TBECB) to assure coordinated adoption of regulations meeting minimum national efficiency goals of the American Recovery and Investment Act through its active participation on TBECB Technical Advisory Groups for certification and energy regulations.

Benefits of Energy Utilization Controls

Representative Knapp's sponsorship of LD699 brings thoughtful consideration of several factors that influence how energy efficiency can be improved through diminishing the use of equipment and systems to only those times when they are needed, which this legislation attempts to do:

- Limit the use of people conveying systems (escalators) to when they are needed; and
- Control lighting in hotel and motel units to only function when the units are occupied.

The legislation also speaks to MUBEC regulating the use of straw-bale and rammed earth construction technologies, and the use of local ungraded lumber in construction; all to be considered in commercial as well as residential construction.

MUBEC Regulatory Process

The use of the above construction methods for commercial buildings definitely needs to be addressed through your MUBEC regulatory process. These are construction methods and energy conservation strategies now being addressed in national model codes and standards by industry, utilities, state administrations and the code enforcement community; to develop sound, practical requirements that can be adapted and adopted across the country.

There is no other national forum that aggregates the level of expertise and sound judgment than those of the model codes and standards organizations; the process used in creating these standards and codes. Adaptation of these models is a process used by almost all of the states in adopting their public health, safety and welfare requirements for building construction.

NEEP urges Favorable Consideration, with Caveats, for Adoption as Maine Regulations

- Support Subsections J and K requirements. They should be adopted as enabling legislation, directing TBECB to adopt regulations that define limits and construction methods for straw bale, rammed earth and local ungraded lumber buildings, particularly where they involve public access and not just residential uses.
 - *Model standards for such construction are nationally available or in the process of being developed. Structural safety issues dominate national model code limitations on size, height, and permitted occupancy classifications for these types of construction, as well as construction safeguards against moisture damage for the use of straw bales as a structural building material, particularly in a moist climate.*
- Support Subsection L requirements. These should be adopted as enabling legislation (as proposed by the bill), but directing TBECB to establish controls for lighting within hotel/motel units allowing for use of the lighting within such units to be automatically or remotely shut off when not occupied or being serviced to conserve energy.



The adopted MUBEC now being implemented already includes a single occupant-controlled light shutoff for these rooms when leaving the unit.

- Support Subsection M requirements. These should be adopted as enabling legislation (as proposed), but directing TBECB to establish time-of-day controls and automatic user-activated overrides for such people-conveying systems with due consideration for the safety and emergency uses of this equipment.
 - *We are concerned that the start-up energy required for these systems may overcome cost benefits for 24-hour automatic user activation, but that timer controls that limit automation of the systems to off-peak hours of operation would be a sensible and cost-effective change. They also need to maintain full compliance with the national standard for commercial conveying systems for public safety.*

We recommend the above recommended changes to the bill in the interests of advancing energy conservation and utilization, but only with full and expert consideration of structural and egress safety issues for users of these buildings that we foresee from our experience.

Conclusion

It is vitally important to the implementation of Rep. Knapp's proposals that they be enabling actions for the TBECB; where they can apply their knowledge and expertise, thereby allowing for comprehensive coordination with other building and fire safety requirements. This allows these concepts to grow and change with national advances in building construction and systems technologies within the codes; not to remain static and difficult to update.

We appreciate this opportunity to provide our perspectives on why this legislation is a plus for energy, economic and environmental policy for the state of Maine, and pledge our support in working with this committee and all other building and energy codes stakeholders in whatever way we can. Thank you again for your leadership on energy issues to the benefit of the people of Maine and for the opportunity to provide our comments.

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