



**Comments of Kevin Rose, Building Energy Technical Associate
Northeast Energy Efficiency Partnerships (NEEP)
To the Energy and Technology Committee of the Connecticut General Assembly
Regarding Senate Bills 352 and 357
March 4, 2014**

Senator Duff, Representative Reed, and members of the Committee:

On behalf of Northeast Energy Efficiency Partnerships (NEEP)¹, thank you for the opportunity to provide comment on Senate Bill 352, An Act Concerning the State Building Code, and Senate Bill 357, An Act Concerning Energy Efficient Building Standards and Product Efficiency Standards. NEEP was founded in 1996 as a non-profit whose mission is to serve the Northeast and Mid-Atlantic to accelerate energy efficiency in the building sector through public policy, program strategies and education. Our vision is that the region will fully embrace energy efficiency as a cornerstone of sustainable energy policy to help achieve a cleaner environment and a more reliable and affordable energy system.

Support for Adoption of the 2015 IECC as Required in SB 352

NEEP strongly supports the State of Connecticut's efforts to create a better energy future for its citizens by adopting the 2015 International Energy Conservation Code (IECC) as the basis of its building energy code. NEEP applauds the sponsors for recognizing energy codes as a cost effective source of long-term energy savings and for setting an aggressive target implementation date.

Connecticut and its citizens stand to benefit from the adoption of the 2015 IECC in many ways:

- The 2015 IECC is the final product of a well-developed, long-standing model code development process that involves the nation's leading experts in energy efficiency, building design and product performance professionals, state and local governmental officials, product manufacturers, architects and builders, including representatives from Connecticut.
- By adopting the 2015 IECC, the State of Connecticut will stay on track with its energy efficiency goals, and will provide benefits to its building and home owners and individual tenants for many years. New construction is the most cost-effective time to install better insulation, quality windows and doors, and efficient heating and cooling equipment that is properly sized. An up-to-date energy code that accounts for the latest in construction practices and technological advances ensures this. In addition, construction costs should be reduced through economies of scale, as suppliers and retailers reduce inventories and streamline production to meet these new energy targets.
- The adoption of the 2015 IECC will facilitate compliance and enforcement of the code, as many of the provisions are simpler and easier to apply than previous versions. Builders and code officials can take advantage of free trainings, free COMcheck and REScheck compliance software, and other support programs offered through the U.S. Department of Energy.

¹ [NEEP](http://www.neep.org) is a regional non-profit organization founded in 1996 whose mission is to promote the efficient use of energy in homes, buildings, and industry throughout the Northeast and Mid-Atlantic 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. The comments are presented by NEEP staff and don't necessarily reflect the views of NEEP's Board, sponsors or partners.



One specific recommendation NEEP would have on the bill is in relation to the Energy Rating Index (ERI) compliance pathway found in the 2015 IECC. The reference to the Home Energy Rating System (HERS) Index in Section 2a2B should instead refer to an ERI. While HERS will likely be the rating system used, the ERI defined in the 2015 IECC is a generalized version of the HERS Index designed to avoid the creation of an unintentional monopoly.

Recommendations for Energy Efficient Building and Product Efficiency Standards Contained in SB 357

It is important to note that the energy rating targets presented in Section 1 would be incompatible with SB 352 or any other change to the Connecticut's base energy code. For residential buildings, the ERI compliance path included in the 2015 IECC would require a HERS Index of 55—a more stringent requirement than the targets of 65 and 70 set in this section. For commercial buildings, the target of at least 20 percent below ASHRAE 90.1-2007 modeled energy requirements would also be at least as efficient (and likely less) than the commercial provisions of the 2015 IECC. As such, NEEP would recommend amending these energy rating targets to ensure that these standards remain above code. We also recommend that these standards be encapsulated in an appendix to the State Building Code. This would provide uniform, state-wide language for jurisdictions who would like to adopt these standards, thereby simplifying adoption, compliance, and enforcement.

We support portions of Section 2, particularly phasing out the use of the Leadership in Energy and Environmental Design (LEED) rating system for state facilities in favor of the Energy Star Target Finder tool or ASHRAE modeling. However, NEEP recommends that new public school construction or substantial renovations instead meet the criteria established by the Northeast Collaborative for High Performance Schools (NE-CHPS), a regionally developed building and renovation protocol with a specific focus on educational facilities. Utilizing a point-based roadmap, NE-CHPS encourages school construction and renovation practices that will reduce carbon emissions, improve indoor environmental quality, reduce operational costs, and enhance occupant productivity. The protocol employs the Target Finder program to assess a designed facility's energy performance, an integral component of the point-based verification system. We also suggest simplifying the eligibility requirements given by subsection (a), if possible.

We also support Section 3, which would clarify that the Commissioner of Energy and Environmental Protection has the authority to adopt new appliance efficiency standards, regardless of the status of standards adoption in California. Appliance energy efficiency standards are one of the most cost-effective tools for states to reduce energy and water use in our products while maintaining product quality and consumer choice. The 2013 Comprehensive Energy Strategy recognized the importance of state appliance efficiency standards, calling for the adoption of new state standards and for Connecticut to work with other states in this region to support more stringent federal appliance efficiency standards². We note that Connecticut's past leadership in adopting energy efficiency standards has helped transform markets in favor of more efficient products nationwide. Section 3 supports this by granting the Commissioner greater flexibility and authority to expedite the approval of state-level appliance efficiency standards. NEEP looks forward to working with DEEP and other stakeholders as it pursues new product efficiency standards in the coming year.

² Connecticut Department of Energy and Environmental Protection (DEEP), 2013 Comprehensive Energy Strategy for Connecticut, February 19, 2013, p. 29-30, http://www.ct.gov/deep/lib/deep/energy/cep/2013_ces_final.pdf



Conclusion

Adoption of the 2015 IECC, as mandated by SB 352, serves several essential goals:

- Improves the thermal efficiencies of wall, roof, floor and basement construction, and of window and door performance that all combine to lower energy bills and provide healthier environments for owners and tenants of new and renovated buildings within the state;
- Improves thermal performance and corollary air infiltration requirements that reduce loss of energy by structures, thereby reducing the costs for equipment and systems necessary to heat and cool these new buildings and renovated spaces;
- Requires water heating and lighting efficiencies that will serve consumers through additional reductions in their utility bills;
- Will also reduce the need for utilities to construct additional generation and transmission capacity improvements to meet increases in electrical demand.

The benefits of these code changes will be immediate and continuing savings for both businesses and residences throughout the state. They also will hold down the increasing costs of energy from higher demand that would occur if not adopted, and reduce continued reliance on older and more expensive power generators, a leading contributor to high energy bills in our Mid-Atlantic and Northeast states.

NEEP wholeheartedly endorses adoption of the 2015 IECC as an essential component of the State of Connecticut's overall energy efficiency goals, and is available to assist in answering inquiries about any aspect of IECC adoption and implementation. NEEP also supports the spirit of SB 357, but recommend its modification as described above. Please do not hesitate to contact NEEP for technical support and assistance in these efforts.

Contact information:

Kevin Rose
Building Energy Technical Associate
NEEP - Northeast Energy Efficiency Partnerships
91 Hartwell Avenue, Lexington, MA 02421-3137
781-860-9177 Ext.158
krose@neep.org