



10/21/2016 10:31:00 AM [redacted]@natick.ma.gov

3. For permitting: Project's total building performance cost compliance report of the existing building plus the addition based on the proposed design for the building in its entirety.

4. For Certificate of Occupancy: A final confirmed total building performance cost compliance report shall be submitted prior to final inspection.

5. For Certificate of Occupancy: Blower door compliance report

R502.2.3 Existing plus addition compliance (Energy Rating Index Alternative). Using equation 5-1, the Energy Rating Index target for the existing building plus the addition shall be calculated (ERI-t). The addition shall be designed and constructed to achieve the ERI target score. This method requires the project to obtain an Energy Rating Index score without onsite power production (OPP) used in the calculation, and to report to the code official as outlined in Section R502.2.3.1.

ERI-t = [ERI-eb - (ERI-eb - ERI-a) x (%reduction)] x (1-Sa) + ERI-a x Sa (Equation 5-1)

where:

ERI-t = The ERI the existing building plus the addition must meet

would demonstrate compliance. The proposed new section of code spells out exactly how to use this compliance option.

3. The last compliance option uses an ERI score equation to create a weighted ERI score using the existing building plus the addition. The ERI target score is the score the addition plus the existing home must achieve to demonstrate compliance.

Regardless of the compliance path chosen the new addition must conform to the provisions of IECC as those provisions relate to new construction. In addition, we felt that it was important in an energy code to require an informative energy audit be performed on the existing home prior to construction of the addition in order to offer an opportunity to incorporate cost effective addition efficiency and comfort measures during the construction of the addition if the homeowner deemed it appropriate.

Additions on existing building like alterations are perhaps one of the primary opportunities to reduce national energy consumption, yet Chapter 5 currently does little to address this need. There are many opportunities to cost-effectively improve energy efficiency of the existing building stock using reasonable criteria as outlined in the above proposal.

This proposal strikes a balance in a practical and cost-effective manner for addressing man t ve energy efficne enete