

9-28-05
APPENDIX “E”
ENERGY CONSERVATION
ALTERNATIVE RESIDENTIAL ENERGY CODE COMPLIANCE PACKAGES
(Includes all updates received thru February 15, 2002)

The contents of this appendix to the Administrative Code is not adopted material but is approved by the Board of Building Standards (BBS) and provided as a reference for users.

The Board of Building Standards recognizes that a number of compliance tools have been developed to aid the builder and the code official in determining energy code compliance. The following methods have been reviewed by the BBS staff, and when used with the general requirements of the OBC, Section 1301.1, demonstrate compliance with Chapter 13 of the Ohio Building Code:

Prescriptive Package:

The following pages contain prescriptive packages which provide conservative insulation and glazing requirements for detached one-, two-, and three-family dwellings only. This approach is similar to Chapter 7 of the International Energy Conservation Code.

Software:

Various manufacturers’ representatives and governmental organizations have developed software that demonstrates compliance with Chapter 13 OBC. Battelle PNL, (800 270-2633 provides MECcheck software, which performs all required calculations based on user provided insulation R-values and areas. The software permits trade-offs, similar to the manual calculations described in Chapter 5 of the International Energy Conservation Code. The Home Energy Ratings of Ohio (HERO) has developed software, used to justify energy efficient mortgages, that provides a “4-star” rating of the home if it complies with Chapter 13 OBC. HERO donated the use of the software to the BBS staff to develop the prescriptive packages of OBC Chapter 13, Section 1301.1.

Tradeoff Worksheets and Chapter 13, Section 1301.1, exception 1:

This option determines compliance of a proposed residence based on a “combined thermal transmittance rate.” The approach uses a simple one-page worksheet developed by various groups, including the National Conference of States on Building Codes and Standards (NCS/BCS), Battelle PNL, and the National Association of Home Builders.

Ohio Alternative Residential Energy Compliance (OAREC) Method:

Developed by Ohio Home Builders Association, (614) 228-5149. The OAREC method leads the builder through a series of calculations that end in an annual heating consumption value, expressed in BTU/(ft squared per yr.), which is compared to the annual heating energy consumption value of a prototype home to determine compliance. This compliance path is similar to Chapter 4 of the International Energy Conservation Code.

The Board of Building Standards staff is available to answer any questions concerning these or any other compliance options. Call (614) 644-2613.