

Residential Energy Inspection Guideline

This guideline is not to be considered an all-inclusive list of required items

Based on the 2021 International Residential Code

Verify Climate Zone per Table N1101.7 4A, 5A or 6A

Energy efficiency shall be attained using one of the following methods:

2021IRC Chapter 11 (based on the 2021 IECC)

The Energy Rating Index Compliance Alternative (ERI). The ERI analysis shall be provided to the code official (2021 IRC N1106)

The PA Alternative Residential Energy Provisions. This is available at the PA Housing Research Center at Penn State University (phrc.psu.edu) The design showing compliance shall be provided to the code official

(ADD) Compliance report generated by approved software tools N1106.7.2

Generally, insulation shall be R49 attic, R21 walls, R30 basement ceiling or R15 continuous/R19 cavity at basement walls, R10/2 ft at slab-on-grade. Floors with radiant heat require more insulation. Depth markers to be placed in attics with blown-in insulation.

(Table N1102.1.2)

NOTE: The 2021 Li-Factors and R-Values in their respective tables have been changed by the RAC to retain the 2018 values.

Sunroom insulation shall comply with N1102.2.12

Vapor barrier shall be installed at the interior side of frame walls (R702.7 N1102.1.1)

Air barriers shall be installed at exterior walls, crawl spaces, garage/residence walls, at exterior walls between tubs/showers and walls and other locations per Table N1102.4.1.1

Window U Factor not to exceed 0.30 (Table N1102.1.2)

Ducts outside the thermal envelope to be insulated to R8 in attics and R6 elsewhere

Mechanical system piping to be insulated R3 minimum. This includes PEX tubing

Duct air leakage testing to be performed; test documentation to be provided to the code official (This is not the whole house air leakage rate test) (N1103.3)

NOTE: The RAC has elected to retain the duct testing requirements of the 2018 IRC section N11 3.3.3

Energy certificate to be posted near the heating equipment or on the front cover of the electrical panel (N1101.14)

Not less than 90% of the permanently installed lighting shall contain only high efficacy lamps (N1104)

NOTE: The RAC has elected to retain the lighting efficacy of the 2018 IRC section N 1104.1

A whole house leakage rate test (blower door test) is to be performed; test documentation to be provided to the code official (N1102.4.1.2)