

DRAFT Definition of “Weatherization” of Residential Units in Connecticut

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The Connecticut Department of Energy and Environmental Protection has established a standardized definition for the “weatherization” of residential units in Connecticut. The purpose of the definition is to provide a practical way to measure progress toward the goal expressed in Connecticut General Statutes Section 16-245m of achieving the weatherization of 80% of the state’s residential units by 2030.

Broadly, [weatherization as a general term](#) refers to the installation of energy-efficient measures to improve the building envelope, its heating and cooling systems, its electrical system, and electricity and/or fuel consumption. More information can be found on the [Connecticut Weatherization Homepage](#).

Connecticut’s Standardized Definition of “Weatherization”

In Connecticut there are three approaches that may be used to determine that a Connecticut home has achieved the standardized definition of “weatherized.”

1. the use of a certain score using the United States Department of Energy Home Energy Score;
2. the “Prescriptive Approach,” which is a set of default criteria; or
3. the “Performance Approach,” which provides for the overall performance of a home to be assessed and the results compared to a computer model.

A home only needs to meet one of these approaches to be considered “weatherized” for the purpose of measuring progress toward the goal.

This establishment of a standardized definition of “weatherization” is not a regulation. These approaches are not used for measuring requirements for compliance with any specific regulation or program. They are intended to simplify the characterization of the energy efficiency status of Connecticut’s residential units, in a practical way, for the purpose of measuring progress toward a statewide goal. This standardized definition does not affect the federal Low-Income Weatherization Assistance Program.

US DOE Home Energy Score Approach

The results of a United States Department of Energy Home Energy Score of five (5) may be used to conclude that a Connecticut home is “weatherized.”

Prescriptive Approach

The State defines a single-family home as “weatherized” under the Prescriptive Approach if it meets at least five (5) of the requirements listed in the Weatherization Prescriptive Checklist below:

Building Element	Prescriptive Requirements (and Performance Approach modeling inputs)
Above Grade Walls	R-11
Flat Ceilings	R-30
Cathedral Ceilings	R-19
Boundary of Frame Floor and Unconditioned Space	Frame floor separating unconditioned space (basement, garage, crawlspace, etc.) from conditioned space is insulated to R-13
Basements with finished interior walls	Interior walls fully insulated to R-5
Windows	U-0.50 (Double pane or single pane with storm) windows
Air Leakage	9 ACH @ 50 Pascals
Duct Leakage For Ducts Outside Conditioned Space	16 CFM @ 25 Pascals per 100 sq. ft. of conditioned space
Duct Insulation: Unconditioned Basements	R-2
Duct Insulation: Unconditioned Attics and Crawlspace	R-4.2

Performance Approach

As an alternative to the use of the default criteria noted in the Prescriptive Approach, a Performance-based Approach may be used as an equivalent way to define a home as weatherized. Under this approach, if a home demonstrates energy usage that is less than or equal to the same home conforming to at least five of the elements of the Weatherization Prescriptive Approach, it will be considered weatherized under the Performance Approach. For example, a home with single pane windows without storm windows may still be defined as weatherized if there is additional insulation or improved duct leakage performance to compensate for the less efficient windows. In a Performance-based Approach, a home energy performance assessor would compare the overall performance of a specific home with the performance of an equivalent home modeled using an industry standard computer model that uses as inputs the specifications provided in the table of Prescriptive Requirements.

For more information please contact the Office of Energy Demand at DEEP.Weatherization@ct.gov.

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