



Conservation Practice Overview

Energy Efficient Building Envelope (Code 672)

A boundary between a conditioned space and an unconditioned space that meets or exceeds best practices for energy efficiency.

Practice Information

NRCS Conservation Practice Standard (CPS) Energy Efficient Building Envelope (Code 672) is applied to improve the energy efficiency of agricultural building envelopes. The practice applies to any partially or fully conditioned agricultural building or space. A partially conditioned space is a building or space using both mechanical ventilation and natural ventilation. Ventilation systems can be used individually or at the same time. Examples include curtain-sided poultry broiler or swine finishing houses, and dairy milking parlors, among others. A fully conditioned space is a building or space using fans, heaters, or other mechanical devices for year-round conditioning of the space. Mechanically ventilated systems can be negative, positive, or neutral pressure. Examples include fully ventilated poultry layer houses or swine farrowing rooms, and milk storage rooms, among others. A building envelope or boundary may include walls, doors, windows, roof or ceiling, and foundation or floor of a building. The practice does not apply to residential spaces or buildings.



The plan for an energy efficient building envelope is based on the building tightness, insulation, and ventilation needs of the facility for the intended purposes of each area or space. An assessment evaluating the potential for increased energy efficiency and savings is necessary to select energy efficient building envelope components that provide the desired level of improvement. The intended use of the facility also needs to be considered to select materials that are rated for dusty, moist, or potentially corrosive environments such as animal housing. Building envelope modifications will impact heating, cooling, or ventilation requirements for the facility. These impacts should be considered when planning changes to the building envelope. Building envelope modifications may require permits and a licensed contractor to complete the work.

Energy efficient building envelopes will require maintenance over the expected 10 year life of the practice to maintain desired building tightness and insulation levels.

Common Associated Practices

NRCS CPS Energy Efficient Building Envelope (Code 672) is commonly applied with NRCS CPSs Energy Efficient Lighting System (Code 670) and Energy Efficient Agricultural Operation (Code 374).

For further information, contact your local NRCS field office.