



The Touchstone Energy HomeSM Program

Comfort. Savings. Efficiency.

Program Standards

The Touchstone Energy HomeSM standards are intended to meet high energy-efficiency guidelines to ensure your home is comfortable and energy efficient. That means you pay less for energy bills because you use less energy to heat and cool your home. If you have any questions about the program standards indicated below, talk to an Energy Advisor at Midwest Electric.

THERMAL ENVELOPE

Insulation is measured in R-values. The higher the R-value, the better your roof and walls will resist the transfer of heat. The items listed below will help ensure your home is well insulated.

- R-30 insulation (U-value .030) for roof/ceilings or full cavity fill.
- R-42 insulation in attics.
- R-13 insulation in wall cavities (R-17 total wall).
- Knee walls should have same insulation as walls. Air barrier is required. Thermal envelope must be sealed and insulated.
- R-19 insulation for floors. For crawlspaces, R-5 on exterior wall or R-13 cavity fill.
- R-5 insulation on exterior basement wall (continuous outside) or R-13 framing cavity.
- R-10 insulation; 2 ft depth perimeter if concrete slab.
- Ground cover is required with 6-mil vapor barrier taped at all joints with 6" overlap.
- House Wrap is required.

WINDOWS

When looking for the energy efficiency of a window, look for the National Fenestration Rating Council Label. This means the window's performance has been certified. The lower the U-value listed, the better insulated your window.

- Double pane windows; ENERGY STAR[®] label suggested.
- 0.35 maximum U-value or any ENERGY STAR labeled glass.
- For skylights, the maximum U-value = 0.6 (insulated = 0.75).

NOTE: Energy consumption can be affected by the total square footage of glass in a house. Low-E glass, window treatments or shading can help lower the heat gained or lost through windows.

DOORS

Doors are also rated using a U-value.

- Metal insulated doors for the exterior are required. (Exception will be for entry door.) Insulated metal door U = .6; Wood door U = .5; Insulated, nonmetal edge, maximum 45% glazing, any glazing double pane U = .35

LIGHTING

- Using compact fluorescent lighting (CFL) can help reduce your lighting cost by up to 75%. Use of CFLs is strongly encouraged.
- Can lights must be air tight and IC-rated.

INFILTRATION CONTROLS

A new home should be sealed well in order to control air infiltration going into and out of your home. Air infiltration is tested during the final inspection of the Touchstone Energy Home when a blower door test is performed. A duct leakage test also will be performed.

- Air seal package required. (Seal all joints, seams and penetrations. Seal site-built windows, doors and skylights. Openings between window and door assemblies and respective jambs and framing need to be properly sealed. Seal all utility penetrations. Seal dropped ceilings or chases adjacent to thermal envelope. Seal knee walls. Seal walls and ceilings separating a garage from conditioned spaces. Seal behind tubs and showers on exterior walls. Seal all other sources of infiltration.)
- House wrap is required.
- Natural air infiltration not to exceed 0.25 air changes per hour, which is verified with a blower door test.
- It is strongly recommended to install duct work in conditioned area. If supply or return is outside the thermal envelope, R-4 insulation is required. R-4 insulation is required if ducts are in floor trusses outside thermal envelope. Crawlspace or basements can not be used as return duct.
- Mastic and mesh or UL-181A aluminum tape is required to seal ducts.

VENTILATION

Adequate ventilation is needed to better control moisture.

- Minimum attic ventilation should be one sq. ft. per 150 sq. ft. of ceiling area.
- Outdoor air intakes and exhaust shall have automatic or gravity dampers that close when system is not operating.

HEAT PUMP

Electric heat pumps are one of the most energy efficient heating methods to be found. Whether you choose an Air Source or Ground Source, you'll be assured of having an efficient, comfortable heating system for many years to come.

- Heating must be either ARI-certified Air Source or Ground Source heat pumps.
- A Manual J calculation must be performed and submitted or other approved heating/cooling calculation method is required (in accordance with Section M1401.3 or 2004 IRC).
- Air Source heat pump must be SEER 14; HSPF 8.5 or better.
- Ground Source heat pump with closed loop must be COP 3.3; EER 14.1 or better.
- Ground Source heat pump with open loop must be COP 3.6; EER 16.2 or better.

WATER HEATING

An electric water heater's efficiency rating can be found on the tank and is shown as "EF" or energy factor. Obtaining a well insulated water heater is important to lowering the cost of heating water.

- Electric water heating is required. If 50 gallon storage tank, EF must be .93 or better. EF can be .92 if hot water line is insulated. If storage tank is larger than 50 gallons, .89 EF is acceptable. Heat pump water heaters are allowed.
- Instantaneous water heaters are prohibited.
- Circulating hot water pipes require R-2 insulation with a manual off switch for the pump.
- R-2 insulation required for any mechanical system piping (with water temperatures >105°F or <55°F).

APPLIANCES

- Cooking must be electric appliance only.
- A gas fireplace is the only permissible gas appliance in the home.