

# The Comfort Advantage Plus Home

## YOUR GUIDE TO *REQUIRED FEATURES*

### HOME CONSTRUCTION:

ENERGY STAR® is a United States government-backed symbol for energy efficiency. Look for the ENERGY STAR label on construction products, appliances and heating/cooling equipment.

ICAT (Insulated Ceiling Air Tight) is a rating for recessed can light fixtures. ICAT indicates air-tight fixture design for insulation contact.

R-Value is a rating for insulation efficiency. Higher ratings are better.

Low E is a window coating that reduces radiant heat flow for energy efficiency.

SHGC (Solar Heat Gain Coefficient), a window rating, tells how much solar heat enters through the window. Lower ratings mean less heat.

Thermal break is an insulating section between the inner and outer sections of a metal window frame. Thermal breaks help prevent condensation on window frame surfaces.

U-Factor is a window rating which indicates how well it prevents heat from escaping, ranging from poor at 1.2 to excellent at .20. Look for the lower number.

### EQUIPMENT AND SIZING:

Air-Source Heat Pump is an energy efficient, electric heating/cooling system that transfers heat between the house and the outside air.

Geothermal Heat Pump System is the most efficient heating/cooling and water heating system that transfers heat between the house and a water loop buried in the earth.

Heat Traps are valves or loops of pipe designed to reduce heat flow out of the water heater tank, when not in use.

Manual J is an Air Conditioning Contractors of America procedure performed by equipment contractors for sizing heating/cooling loads in homes.

Programmable and/or smart thermostats can be set to automatically adjust heating/cooling temperatures while you are away or while you are sleeping.

### EFFICIENCY RATINGS:

Energy Factor is an efficiency rating for water heaters. Higher ratings are better.

HSPF is a measure of a heat pump unit’s average heating efficiency throughout the heating season. Range is 7.7 to around 10, with higher being the better rating.

SEER is a measure of the heat pump unit’s average cooling efficiency throughout a cooling season. Range is from 15 to around 25. Higher numbers mean greater energy savings.

EER is the primary efficiency indicator for geothermal heat pumps, with higher numbers being better. The EER range for closed-loop geothermal heat pump systems is from 12 to around 28.

### NOTES:

*Electric whole-house tankless water heaters do not qualify for the Comfort Advantage Program. Very small point-of-use tankless units may be used for remote sinks, such as pool houses or utility sheds.*

## REQUIRED FEATURES

### HEATING AND COOLING EQUIPMENT

15 SEER or higher Electric Heat Pump or an ARI-Rated Geothermal System	✓
Programmable thermostat	✓
Ductwork sealed with mastic (no duct tape)	✓
Duct Insulation: R-4 in conditioned space, R-6 in attic and crawl space	✓
Heating and cooling equipment sized according to industry standards in Manual J	✓

### WATER HEATING

Electric tank water heater with a 0.90 energy factor or higher; or a qualified outdoor gas tankless water heater.	✓
Insulate pipes. Select unit with built-in heat traps or installed traps.	✓

### INSULATION

R-38 Attic Insulation	✓
R-20 Cathedralized Unvented Attic Insulation (Encapsulated Attic) - foam insulation between roof rafters on under side of roof decking and on attic sidewalls and gable ends.	✓
R-13 Wall Insulation	✓
R-19 Floor Insulation for crawl spaces	✓
Insulation fills entire cavities. (Exceptions apply for some high R-value insulating materials); No compressed batts or gaps are allowed. Even coverage is required.	✓

### WINDOWS

Double Pane low-e windows	✓
Glass area no more than 20% of floor area	✓
Windows rated to .40 U-factor and 0.35 SHGC (or lower for each)	✓

### AIR RETARDERS

All penetrations through exterior walls sealed	✓
Sill insulation between slab and bottom plate	✓
Housewrap or building paper covers exterior sheathing in wood framed houses	✓
Canned lights rated as airtight and for insulated ceiling (ICAT)	✓
Electrical boxes on exterior walls caulked or gasketed	✓
Holes into attic sealed	✓

### ADDITIONAL FEATURES

Radon vent pipe installed	Choose 3
Exhaust System in kitchen and baths	
ENERGY STAR qualified windows, doors and skylights	
Duct system in conditioned space	
LED (hard wired on 25% of fixtures)	
ENERGY STAR Refrigerator	
Supply and return air vents in each room	
Air handler in conditioned space	
Mechanical ventilation system (for extremely tight houses)	
Continuous ridge vent	
Radiant barrier in attic	
Light color roof	
Polyethylene (plastic) vapor barrier below gravel	
Perimeter Slab Insulation with termite shield	



Look for the ENERGY STAR®

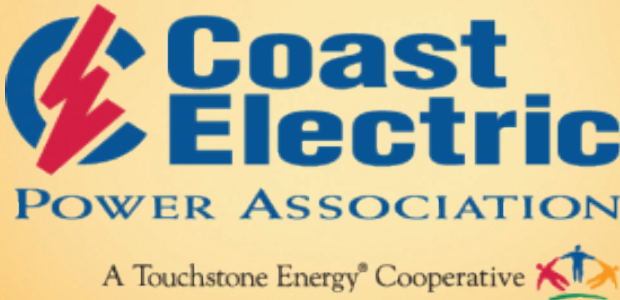
ENERGY STAR® is a United States government-backed symbol for energy efficiency. Look for the ENERGY STAR logo on construction products, appliances and heating/cooling equipment. ENERGY STAR provides a trustworthy label on over 50 product categories for the home and office. These products deliver the same or better performance as comparable models while using less energy and saving money.



For more information, check out [www.energystar.gov](http://www.energystar.gov) before you build.

To receive ENERGY STAR certification, a newly constructed home must be inspected and rated by a third party, certified ENERGY STAR home rater. The rating includes a blower-door test, a procedure which measures the effectiveness of air sealing in home construction.

For more information on ENERGY STAR certification for a new home or for a listing of third-party raters, go to [www.energystar.gov](http://www.energystar.gov) and click on New Home.



CALL BEFORE YOU BUILD

Prior to construction, call your local electric cooperative to schedule a house plan evaluation. Planning ahead can save construction costs as well as energy dollars. Ask your representative to assist you in meeting Comfort Advantage Plus requirements.

ENERGY SAVINGS

For the Comfort Advantage Plus home, your electric cooperative representative and your builder must verify that standards have been met. Comfort Advantage Plus standards helps you realize greater energy savings. Your electric cooperative representatives will offer energy management suggestions on proper application and installation of energy saving technologies. Inspections during construction will confirm that your new home meets all Comfort Advantage Plus standards.

When you build a Comfort Advantage Home, you will be rewarded with financial incentives, but the real incentive comes from years of energy savings and comfortable living.

COMFORT ADVANTAGE PLUS INCENTIVES

- \$500 Comfort Advantage Plus Home
- \$150 Per additional qualified heat pump system
- \$500 Additional incentive for a qualified geothermal HVAC system

Comfort Advantage Plus is a recognized standard for energy efficient construction and quality products for the home.

The program is promoted by electric cooperatives who provide electric service to more than 432,000 homes and businesses in Mississippi.

