

BOONE ELECTRIC'S GROUND SOURCE HEAT PUMP PROGRAM

Boone Electric's Ground Source Heat Pump Program is available to members only when the system is installed by a dealer who has received training according to Boone Electric's requirements. Boone Electric will not recommend a specific dealer. It is up to the member to select the dealer best suited for the installation.

BOONE ELECTRIC PROVIDES:

1. Rebates of \$250/ton of installed capacity applied to loop cost. An additional rebate of \$500/ton is being made available to co-op members by Boone Electric's power supplier and only for a limited time. The installation must meet all of Boone Electric's requirements to qualify. (Rebate amount may change, and all rebates are subject to federal and state tax.) Residential rebates have a 10-ton limit and commercial rebates have a 50-ton limit.
 - a. A \$150/ton rebate is also available for a limited time to Boone Electric members who replace an existing GSHP system with a minimum 19.1 EER rated system that also meets all installation requirements (geothermal heat pump criteria and is at least a 3 EER improvement over existing system).
2. A load management device will be installed on an electric resistance heat that has been installed as an emergency backup heat on the GSHP. Control of emergency resistance heat is at Boone Electric's discretion. **Boone Electric also reserves the right to sub-meter either the GSHP or any emergency heat.**
3. Required energy audit before sizing of equipment to determine insulation values on retrofits and fitness of structure for program according to Manual J calculations and Boone Electric's design criteria on existing homes.
4. Boone Electric will review its Dealer List on an annual basis to analyze individual dealers' past involvement for future standing in the program, as well as DNR eligibility.

The house must be an energy-efficient structure.

Minimum insulation requirements as determined by Boone Electric:

Insulation Levels:	Recommended Levels:
Attics: R-45	R-50
Walls: R-13	R-19
Basement Walls: R-11 and/or Floors: R-13	R-19

Duct Work: All duct work that runs through an unconditioned space must be insulated (R-13). All duct work must be properly sealed to prevent air leakage.

Doors: Urethane core: R-13.5
Polystyrene core: R-7.5
Solid wood with storm: R-3.5

Attic Ventilation:

Ratio of total net free area to area of ceiling shall not be less than 1/150, except ratio may be 1/300 provided:

- A vapor barrier having a transmission rate not exceeding one perm is installed on the warm side of the ceiling; or
- At least 50% of the required ventilating area is provided by ventilation located in the upper portion of the space to be ventilated (at least 3 feet above eaves or cornice vents), with the balance of the required ventilation provided by eaves or cornice vents.

Windows: Double pane insulated: R-2 or R-3
Single pane with storm windows: R-1.9

ACH: Air Changes Per Hour, as determined with a blower door test, must show air changes per hour under natural conditions of .50 ACH or less.