

News Release



Electric Cooperatives of Arkansas

Energy Efficiency Home Makeover transforms home of Aaron and Jerissa Rogers

Little Rock, Ark. — Oct. 1, 2009 — On Aug. 5, Aaron and Jerissa Rogers of Wesley, were surprised to learn that their home was the winner of the Electric Cooperatives of Arkansas Energy Efficiency Home Makeover Contest. Two months later, they are even more surprised as their home is much more comfortable and energy efficient.

“I didn’t think our house could ever be this comfortable,” Jerissa Rogers said. “We noticed a significant improvement in the comfort of our home after the installation of foam insulation in the attic and walls and a new ultra-efficient 20-SEER air-to-air heat pump by Trane.”

According to Bret Curry, manager of residential energy marketing for the Electric Cooperatives of Arkansas, the foam insulation creates a barrier similar to an ice chest and the heat pump is one of the most efficient on the market.

“The integration of new insulation and the ultra-efficient heat pump resulted in a dramatic reduction in humidity and air infiltration levels,” Curry said. “This home will now have the same comfort and affordable utility bills as one of our new model homes.”

The couple was selected in July from more than 1,100 applicants for the 2009 Energy Efficiency Makeover Contest sponsored by the Electric Cooperatives of Arkansas. Aaron and Jerissa are members of Ozarks Electric Cooperative.

Mrs. Rogers applied for the makeover due to electric bills averaging more than \$200 a month and the home was still uncomfortable. When the cooperatives performed an energy audit on the home in July, it was clear that the home was very energy inefficient.

As part of the energy audit, a blower door test was performed, which removes air from a house using a large fan placed inside a door facing. By removing the air, negative pressure is placed on the house. When air from the outside begins to filter in to replace the air that is removed, energy auditors can determine where the house is leaking. Then an infrared thermal imaging camera was used to spot the areas of air infiltration.

“The house had significant unwanted and unmanaged air infiltration,” Curry said, adding that the testing revealed the home had a rate of .90 natural air changes per hour. That means that 90 percent of the air in the house changed every hour, which is very inefficient. Ideally, only about 25 to 30 percent of the air in a house changes every hour, he added. After the makeover was complete, a final blower door test revealed the efforts reduced the overall reading to an impressive .39 or 39 percent air changes per hour.

In addition to the home’s thermal envelope, the following components were installed:

- Trane 20i ultra-efficient heat pump was installed by Rood Heating & Air of Russellville.
- 40-gallon energy efficient Marathon water heater was installed.
- Energy-efficient Weatherbarr windows were installed by Harry G. Barr of Fort Smith.
- Energy Star rated appliances were installed by Metro Home Builders of Springdale.
- New vinyl siding with foam thermal barrier was installed by Royal Siding of Royal.
- Energy saving strip cords were furnished by Belkin.
- Foam gaskets for outlets and switches of interior walls were furnished by DropYourEnergyBills.com.
- Incandescent lights were replaced with compact fluorescent lights.
- Arkansas American Roofing and Bradco re-roofed the home.

In addition to the house being more comfortable, Jerissa said she and Aaron have been amazed at how quiet it is inside.

“We can’t hear the bugs outside or any cars going by,” she said. “We didn’t believe it could be this tight.”

“The Energy Efficiency Makeover Contest is one of our most successful energy efficiency programs,” said Doug White, vice president of systems services for the Electric Cooperatives of Arkansas. “The Electric Cooperatives of Arkansas will continue to educate our members about energy efficiency and help them improve their quality of life.”

The measures incorporated into the makeover project are available at www.smartenergytips.org.

The Electric Cooperatives of Arkansas comprise 17 electric distribution cooperatives; Arkansas Electric Cooperatives Inc. (AECI), a Little Rock-based cooperative that provides various services to the distribution cooperatives; and Arkansas Electric Cooperative Corp. (AECC), a generation and transmission cooperative. The distribution cooperatives provide electricity to approximately 500,000 members, or customers, in Arkansas and surrounding states.

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