

Take Control & Save®

Residential energy efficiency pilot program - Fact sheet

Johnston family pilot project - Clarence, Mo.

Through an energy audit done by their local cooperative, Macon Electric, Roger and Mia Johnston realized their heating system was undersized.

They joined with Macon Electric Cooperative and their power supplier through the Take Control & Save Home Energy Pilot Program to make energy-efficient improvements so their home would be a comfortable temperature.

Problems identified:

- Excessive whole-house air leakage
- No insulation in the rim joists or basement walls
- Inadequate insulation in the attic
- Leaky windows and doors

Member goals:

- Effectively heat the home with current heating equipment
- Significantly reduce the home's air flow
- Reduce electric bill

Completed energy efficiency measures:

- Cellulose insulation added to all exterior walls and blown in the attic
- Closed cell foam insulation added to all foundation walls, rim joist area and attic closet spaces
- Replaced: four basement windows, front door with Energy Star door
- Weatherized doors and windows using over **eight cases of caulk!**
- Replaced all lighting with compact fluorescent light (CFL) bulbs
- Repaired the ductwork including air-sealing and insulating
- Air-sealed the main attic access and fireplace

Johnston home statistics:

- Construction type: frame
- Exterior: wood
- Home style: single family
- Age of home: 100 plus years
- Square footage: 3,000

Energy audit information:

- Conducted Feb. 6, 2009
- By Macon Electric Cooperative's energy audit staff

Energy and money-saving results!

- Saved \$433, or 27 percent, from the previous heating season (11/09 - 3/10)
- Saved 7,295 kilowatt-hours of electricity in one heating season
- CFM reduction of 5,162 (from 7,592 to 2,430)
- ACH reduction of more than 17 (from 21.36 to 3.85)
- Best of all, the Johnston's heating equipment can now adequately heat their home to a comfortable temperature.

