

Easy Energy USA, LLC – Case Study



EASY ENERGY USA

Home Performance with ENERGY STAR® Nancy & Alan McCracken



Background

The McCracken home is a 3,276 sqft. ranch home with an attached garage and finished basement. Various heating methods are implemented in the home: a wood pellet stove, electric baseboards, and a propane fireplace. The hot water heater for the home is electric.

Key Reasons for Project

Mr. and Mrs. McCracken had skyrocketing utility bills and wanted to reduce those costs. They noticed drafts in several areas of the home, especially from the whole-house fan located over their hallway.

Getting Started

Nancy and Alan hired Easy Energy USA, a Certified RESNET, BPI Accredited Contractor and Energy Star Partner to perform an energy audit. Easy Energy performed whole-house diagnostic tests to find out what was causing the home's comfort, health, and energy issues. Easy Energy then modeled energy solutions for the homeowners.

Top Priorities Identified

Our main goals were:

- to reduce air infiltration into the home from the rim joist
- to reduce air exfiltration out of the home from the attic
- to increase levels of insulation in the attic

Implementation

Implementing the modeled solutions was easy when the McCrackens also chose Easy Energy USA BPI Accredited Contracting Arm to do the work.

<u>What:</u>	<u>When:</u>	<u>Comments:</u>
Energy assessment	Nov 29, 2010	Infiltration: 0.67 ACH, HERS 105
Work begins (attic)	Jan 24, 2011	"Home noticeably warmer the first night."

Summary of Benefits

Energy improvements, reduced air leakage, lowered energy bills, increase in savings, mitigated health issues, improved environmental impact, etc.

Results

Infiltration level reduced to 0.24 ACH (24% of the volume of air in the home is exchanged with outside air every hour.) Insulation levels in attic improved to R-50 from R-8. Drafts around whole-house fan ceased.

"The result is a very much more comfortable house." -Alan McCracken

"A plan was developed and work began shortly thereafter. The job was completed in five days. The snow and ice did not stop the Easy Energy crew. The result is a very much more comfortable house."

-Alan McCracken

Customer:

Nancy & Alan McCracken

Location:

Dingmans Ferry, PA

Initial HERS Score: 105

Initial Infiltration: 0.67ACH

Initial Emissions:

- CO₂: 17.5 tons/year
- SO₂: 196 lbs/year
- NO_x: 40.8 lbs/year

Work completed:

- Air sealed rim/band joist
- Air sealed & insulated attic
- Custom whole house fan cover

Final HERS Score: 88

Final Infiltration: 0.24ACH

Final Emissions:

- CO₂: 14 tons/year
- SO₂: 160.8 lbs/year
- NO_x: 33.5 lbs/year

Project investment:

\$5,911

Annual savings:

\$659 per year