



ENERGY STAR HOME REPORT

Date: June 19, 2009 Rating No.:
Building Name: Kuhns Bros Log Home Rating Org.: ENERGY AUDITORS
Owner's Name: Phone No.: 717-943-2582
Property: Climate Zone 5 Rater's Name: Stan Kuhn
Address: Huntingdon County, Pa Rater's No.: PA-314
Builder's Name: Kuhns Bros
Weather Site: Harrisburg, PA Rating Type: Projected Rating
File Name: Kuhns Bros - print.blg Rating Date: 11-21-2008

Normalized, Modified End-Use Loads (MMBtu/year)

Table with 3 columns: Category, ENERGY STAR, As Designed. Rows include Heating, Cooling, Water heating, Lighting & Appliances, Total, and HERS Index.

ENERGY STAR Mandatory Requirements

Form with checkboxes for Thermal Bypass Inspection Checklist, Ductwork Requirements, ENERGY STAR Products, and ENERGY STAR Scoring Exceptions.

\* Thermal Bypass Checklist and ENERGY STAR Products are not checked in REM/Rate at this time.

This home MEETS OR EXCEEDS the energy efficiency requirements for designation as an EPA ENERGY STAR Qualified Home.

Pollution Prevented

Table with 2 columns: Type of Emissions, Reduction (lb/year). Rows include Carbon Dioxide (CO2), Sulfur Dioxide (SO2), and Nitrogen Oxides (NOx).

Energy Cost Savings (\$/year)

Table with 2 columns: Category, Savings (\$/year). Rows include Heating, Cooling, Water Heating, Lights & Appliances, and Total.

The energy savings and pollution prevented are calculated by comparing the Rated Home to the Reference Home as defined in the "Mortgage Industry National Home Energy Rating Systems Standards" as promulgated by the Residential Energy Services Network (RESNET).

REM/Rate - Residential Energy Analysis and Rating Software v12.6

This information does not constitute any warranty of energy cost or savings. © 1985-2008 Architectural Energy Corporation, Boulder, Colorado.



## ENERGY STAR HOME VERIFICATION SUMMARY

Date:	June 19, 2009	Rating No.:	
Building Name:	Kuhns Bros Log Home	Rating Org.:	ENERGY AUDITORS
Owner's Name:		Phone No.:	717-943-2582
Property:	Climate Zone 5	Rater's Name:	Stan Kuhn
Address:	Huntingdon County, Pa	Rater's No.:	PA-314
Builder's Name:	Kuhns Bros	Rating Type:	Projected Rating
Weather Site:	Harrisburg, PA	Rating Date:	11-21-2008
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### Building Information

Conditioned Area (sq ft):	1977	Housing Type:	Single-family detached
Conditioned Volume (cubic ft):	23600	Foundation Type:	Unconditioned basement
Insulated Shell Area (sq ft):	4763	HERS Index:	66 ****+
Number of Bedrooms:	3		

### Building Shell

Ceiling w/Attic:	None	Window/Wall Ratio:	0.19
Vaulted Ceiling:	R-38, Vaulted* U=0.030	Window Type:	Anderson 200*
Above Grade Walls:	5.5 in log* U=0.099	Window U-Value:	0.280
Found. Walls (Cond):	None	Window SHGC:	0.430
Found. Walls (Uncond):	R-12.5 cont. rigid* R=12.5	Infiltration:	Htg: 1950 Clg: 1950 CFM50
Frame Floors:	R-19** U=0.054	Measured Duct Leakage:	45.00 CFM25
Slab Floors:	None	Leakage to Outside:	45.00 CFM

### Mechanical Systems

GSHP:	Htg: 83.1 kBtuh, 5.0 COP. Clg: 49.0 kBtuh, 30.0 EER.
Water Heating:	Conventional, Elec, 0.95 EF.
Programmable Thermostat:	Heat=No; Cool=No

Note: Where feature level varies in home, the dominant value is shown.

**This home MEETS OR EXCEEDS the EPA's requirements for an ENERGY STAR Home.**



## An ENERGY STAR<sup>®</sup> Qualified Home

This home built at

### Huntingdon County, Pa

by Kuhns Bros

has been verified by ENERGY AUDITORS, an independent professional or organization,  
to meet or exceed strict energy efficiency guidelines  
set by the U.S. Environmental Protection Agency.

HERS Index: 66

11-21-2008

A handwritten signature in black ink, appearing to read "David Lee".

David Lee  
Chief  
ENERGY STAR Residential Branch

A handwritten signature in black ink, appearing to read "Sam Rashkin".

Sam Rashkin  
National Director  
ENERGY STAR for Homes

[www.energystar.gov](http://www.energystar.gov)

# Home Energy Rating Certificate

Kuhns Bros Log Home  
Huntingdon County, Pa



**5 Stars Plus  
Projected Rating**

## Uniform Energy Rating System

1 Star	1 Star Plus	2 Stars	2 Stars Plus	3 Stars	3 Stars Plus	4 Stars	4 Stars Plus	5 Stars	5 Stars Plus
500-401	400-301	300-251	250-201	200-151	150-101	100-91	90-86	85-71	70 or Less

## Energy Efficient

**HERS Index: 66**      **Efficient Home Comparison: 34% Better**

### General Information

Conditioned Area: 1977 sq. ft.      HouseType: Single-family detached  
 Conditioned Volume: 23600 cubic ft.      Foundation: Unconditioned basement  
 Bedrooms: 3

### Mechanical Systems Features

Ground-source heat pump: Electric, Htg: 5.0 COP. Clg: 30.0 EER.  
 Water Heating: Conventional, Electric, 0.95 EF, 50.0 Gal.

Duct Leakage to Outside: 45.00 CFM.  
 Ventilation System: None  
 Programmable Thermostat: Heating: No      Cooling: No

### Building Shell Features

Ceiling Flat: NA      Exposed Floor: R-19  
 Vaulted Ceiling: R-38      Window Type: Anderson 200\*  
 Above Grade Walls: R-7      **Infiltration:**  
 Foundation Walls: R-12.5      Rate: Htg: 1950 Clg: 1950 CFM50  
 Slab: None      Method: Blower door test

### Lights and Appliance Features

Percent Fluorescent Pin-Based: 0.00      Clothes Dryer Fuel: Electric  
 Percent Fluorescent CFL: 75.00      Range/Oven Fuel: Electric  
 Refrigerator (kWh/yr): 500.00      Ceiling Fan (cfm/Watt): 0.00  
 Dishwasher Energy Factor: 0.46

The Home Energy Rating Standard Disclosure for this home is available from the rating provider.

### REM/Rate - Residential Energy Analysis and Rating Software v12.6

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### Rating Number:

Certified Energy Rater: Stan Kuhn  
 Rating Date: 11-21-2008  
 Rating Ordered For: Kuhns Bros.

### Estimated Annual Energy Cost

Use	Projected Rating		
	MMBtu	Cost	Percent
Heating	16.0	\$375	29%
Cooling	2.7	\$63	5%
Hot Water	12.2	\$285	22%
Lights/Appliances	21.1	\$495	39%
Photovoltaics	-0.0	\$-0	-0%
Service Charges		\$60	5%
<b>Total</b>		<b>\$1278</b>	<b>100%</b>

**This home meets or exceeds the minimum  
criteria for all of the following:**

### TITLE

### Company

Address  
 City, State, Zip  
 Phone #  
 Fax #

Certified Energy Rater