

Equipment Sizing

Property

Paul Edmonds
29345 Countryside Rd
Weston, MO 66007

Organization

Central Energy Audit, LLC
816-645-6140
Krissa Albert

HERS

Confirmed
2018-11-05
Rating No:00032
Rater ID:9501914



Weather:Topeka, KS

Paul & Jennifer Edmonds
950191400032-A1.blg

Builder

Premier Homes

Heating

Calculated Peak Load (kBtu/hr)	59.1
Infiltration	0.1
Envelope	58.9
Sizing Factor (%)	100.0
Heating Equipment Capacity(kBtu/hr)	
Required	59.1
Specified	292.5

Cooling

Calculated Peak Load (kBtu/hr)	38.2
Sensible	29.2
Latent	9.0
SHF	0.8
Sizing Factor(%)	100.0
Cooling Equipment Capacity (kBtu/hr)	
Required Total	38.2
Specified Total	156.0
Specified SHF	0.7
Required Sensible	29.23
Specified Sensible	109.20
Required Latent	9.01
Specified Latent	46.80

REM/Rate - Residential Energy Analysis and Rating Software v15.7.1

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Source Energy & Emissions



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Source Energy Consumption (MMBtu/year)

	HERS Reference Home	As Designed	Difference	% Difference
Heating	400.8	143.7	-257.1	-64.2%
Cooling	67.0	19.7	-47.4	-70.7%
WaterHeating	49.6	30.4	-19.1	-38.6%
LightsAppliances	200.3	133.8	-66.4	-33.2%
Photovoltaics	0.0	0.0		
Total	717.7	327.6	-390.1	-54.4%

Total Emissions

Type of Emissions	HERS Reference Home	As Designed	Difference	% Difference
Carbon Dioxide (CO2) - tons/year	47.5	21.6	-25.8	-54.4%
Sulfur Dioxide (SO2) - lbs/year	124.2	56.4	-67.8	-54.6%
Nitrogen Oxides (NOx) - lbs/year	119.7	54.6	-65.1	-54.4%

Emissions By End-Use

(HERS Reference Home versus As Designed)

	CO2-tons/yr		SO2-lbs/yr		NOx-lbs/yr	
	Reference	Design	Reference	Design	Reference	Design
Heating	26.6	9.5	70.1	25.1	67.0	24.0
Cooling	4.4	1.3	11.7	3.4	11.2	3.3
WaterHeating	3.3	2.0	8.7	5.3	8.3	5.1
LightsAppliances	13.2	8.8	33.6	22.5	33.2	22.2
Photovoltaics	0.0	0.0	0.0	0.0	0.0	0.0

The energy and emission values are calculated by comparing the Rated Home to the HERS Reference Home as defined in the ANSI/RESNET/ICC Std 301. Site-to-source multipliers and air emission data were taken from the US EPA eGRID2012 database.

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Home Energy Rating Certificate



Property

Paul Edmonds
29345 Countryside Rd
Weston, MO 66007

HERS

Rating Type: Confirmed
Rating Date: 2018-11-05
Registry ID: 241900308

Certified Energy Rater: Krissa Albert
Rating Number: 00032

HERS Index: 46

General Information

Conditioned Area	6670 sq. ft.	House Type	Single-family detached
Conditioned Volume	107319 cubic ft.	Foundation	More than one type
Bedrooms	4		

Mechanical Systems Features

Air-source heat pump:	Electric, Htg: 10.5 HSPF. Clg: 21.5 SEER.
Air-source heat pump:	Electric, Htg: 10.5 HSPF. Clg: 21.5 SEER.
Air-source heat pump:	Electric, Htg: 10.5 HSPF. Clg: 21.5 SEER.
Duct Leakage to Outside	NA
Ventilation System	Exhaust Only: 253 cfm, 60.0 watts.
Programmable Thermostat	Heat=Yes; Cool=Yes

Building Shell Features

Ceiling Flat	NA	Slab	R-32.0 Edge, R-0.0 Under
Sealed Attic	NA	Exposed Floor	NA
Vaulted Ceiling	R-49.0	Window Type	U-Value: 0.280, SHGC: 0.330
Above Grade Walls	R-24.0	Infiltration Rate	Htg: 431 Clg: 431 CFM50
Foundation Walls	R-32.0	Method	Blower door

Lights and Appliance Features

Interior Fluor Lighting (%)	0.0	Range/Oven Fuel	Natural gas
Interior LED Lighting (%)	100.0	Clothes Dryer Fuel	Natural gas
Refrigerator (kWh/yr)	691	Clothes Dryer CEF	2.32
Dishwasher (kWh/yr)	269	Ceiling Fan (cfm/Watt)	92.00

Estimated Annual Energy Cost

Use	MMBtu	Cost	Percent
Heating	38.8	\$890	32%
Cooling	5.3	\$208	7%
Hot Water	8.2	\$245	9%
Lights/Appliances	39.6	\$1068	38%
Photovoltaics	-0.0	\$-0	-0%
Service Charges		\$378	14%
Total	92.0	\$2788	100%

Criteria

This home meets or exceeds the minimum criteria for the following:

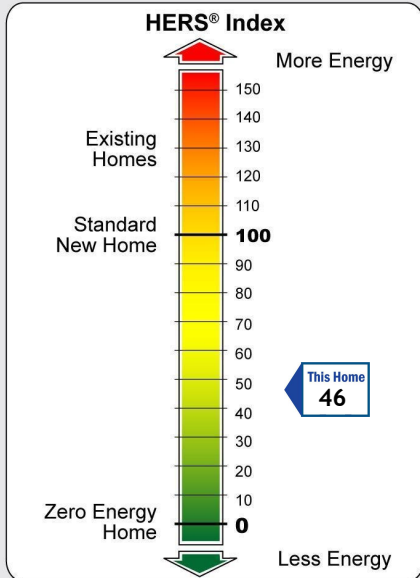
Krissa Albert - HERS Rater
Central Energy Audits
13408 E Meadow Dr
Peculier, MO 64078
816-645-6140
info@centralenergyaudits.com



REM/Rate - Residential Energy Analysis and Rating Software v15.7.1

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

RESNET HERS Index Certificate



29345 Countryside Rd
Weston, MO 66007
Rater: Krissa Albert
Registry ID: 241900308
Annual Estimates*:
Elec(kWh): 25517 Gas(CCF): 51
CO2 emissions(Tons): 22
Energy Savings (\$)**: 3952
*Based on standard operating conditions
**Based on U.S. DOE designation of a HERS
Index of 130 as the 'Typical Existing Home'

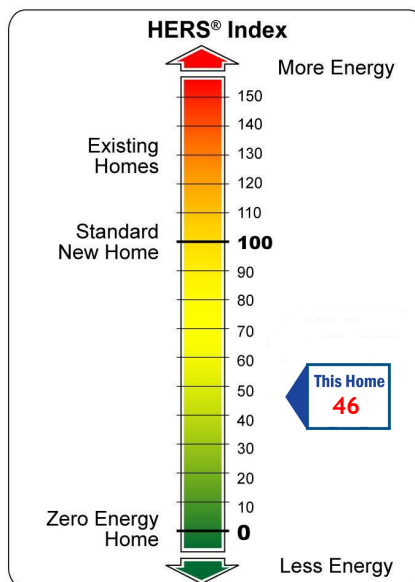
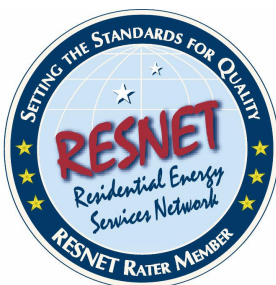
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816-645-6140



This home has been inspected
and performance tested in
accordance with Chapter 3 of
the RESNET standards.

RESNET®
www.resnet.us

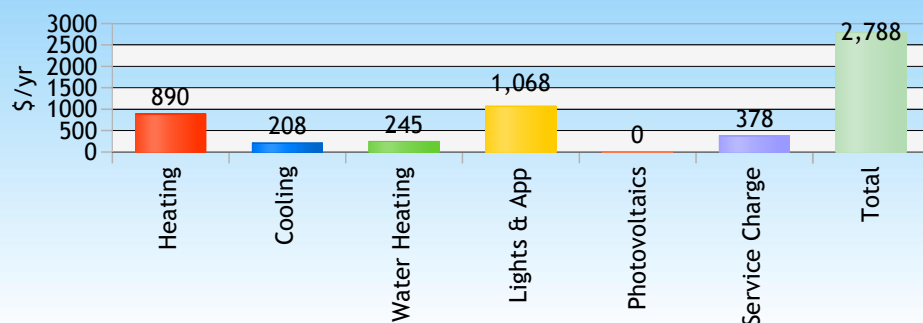
HERS PERFORMANCE



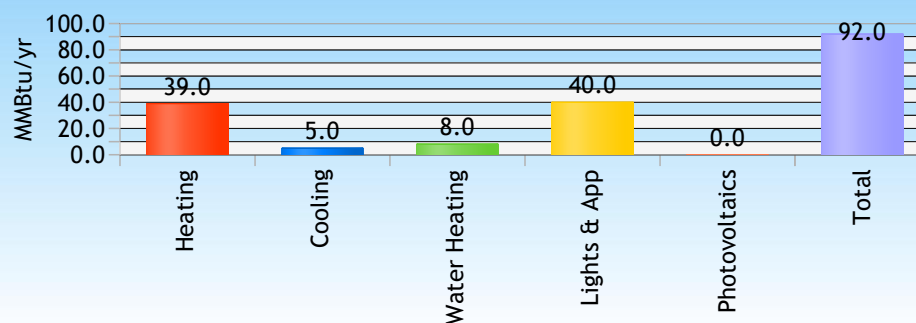
ENERGY RATING CERTIFICATE



Estimated Annual Energy Cost



Estimated Annual Energy Consumption



Address 29345 Countryside Rd
Weston, MO 66007

House Type Single-family detached

Cond. Area 6670 sq. ft.

Rating No. 00032

Issue Date February 02, 2019

Certification Inspected and Tested

Annual Estimates*

Electric(kWh): 25517

Natural gas(CCF): 51

CO2 emissions(Tons): 22

Annual Savings**: \$3952

* Based on standard operating conditions

** Based on a HERS 130 Index Home

Krissa Albert - HERS Rater

Central Energy Audits

13408 E Meadow Dr

Certified Rater Krissa Albert

Rater ID 9501914

Registry ID 241900308

Rating Date 2018-11-05

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