

Action Report

Property

Huston
2316 Uphoff Road
Cottage Grove, WI 53527

Organization

EMF Home Consultants Inc
608-235-7282
Mark Fredenberg

HERS

Confirmed
2021-12-22
Rating No:58-1825
Rater ID:2879310

Weather:Madison, WI

Huston
058-1825 with Garage.blg

Builder

Ultimate Construction

The following table identifies and ranks energy use and cost by building component. A maximum of six components are shown. Current mechanical equipment is assumed for this analysis. To determine the impact of varying the equipment efficiency, change the equipment specified in the building file and perform the energy calculations again.

ANNUAL ENERGY PROFILE

Energy End-Use	Component	Consumption(MMBtu/yr)	Cost(\$/yr)
HEATING	Windows/Skylights	50.7	612
	Above Grade Walls	33.0	398
	Infiltration	30.6	369
	Ceilings/Roofs	30.3	366
	Foundation Walls	25.3	305
	Slab Floors	10.7	129
	Other	-4.2	-51
	Total	176.4	2127
COOLING	Windows/Skylights	8.6	294
	Internal Gains	4.0	135
	Ceilings/Roofs	0.2	6
	Other	-6.7	-229
	Total	6.0	206
WATER HEATING	Water Heater	16.0	193
LIGHTS & APPLIANCES	Lights & Appliances	59.4	2032

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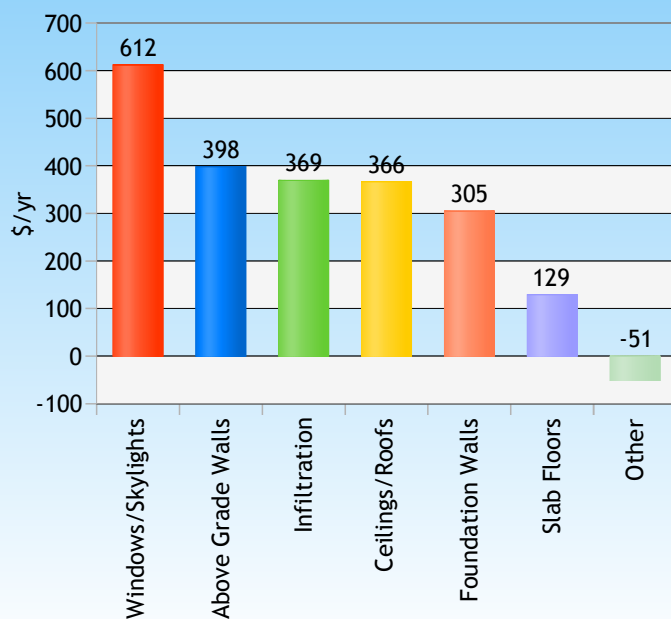
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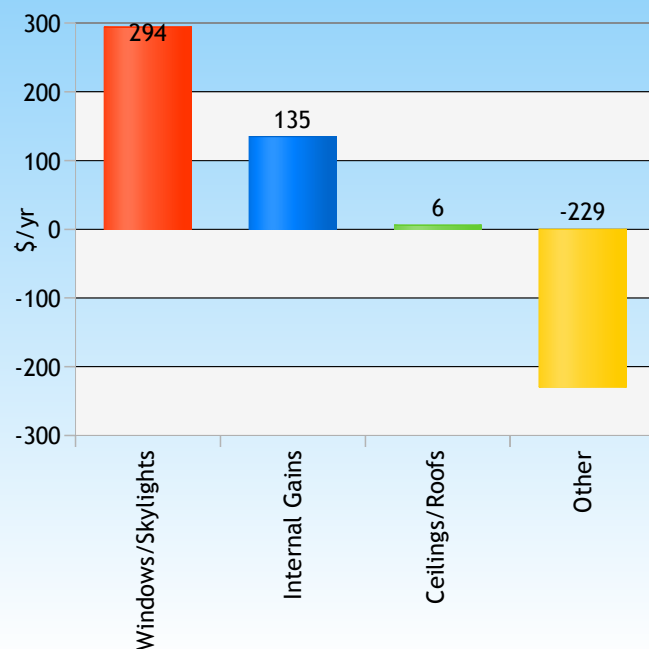
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Heating Cost (\$/yr)



Cooling Cost (\$/yr)



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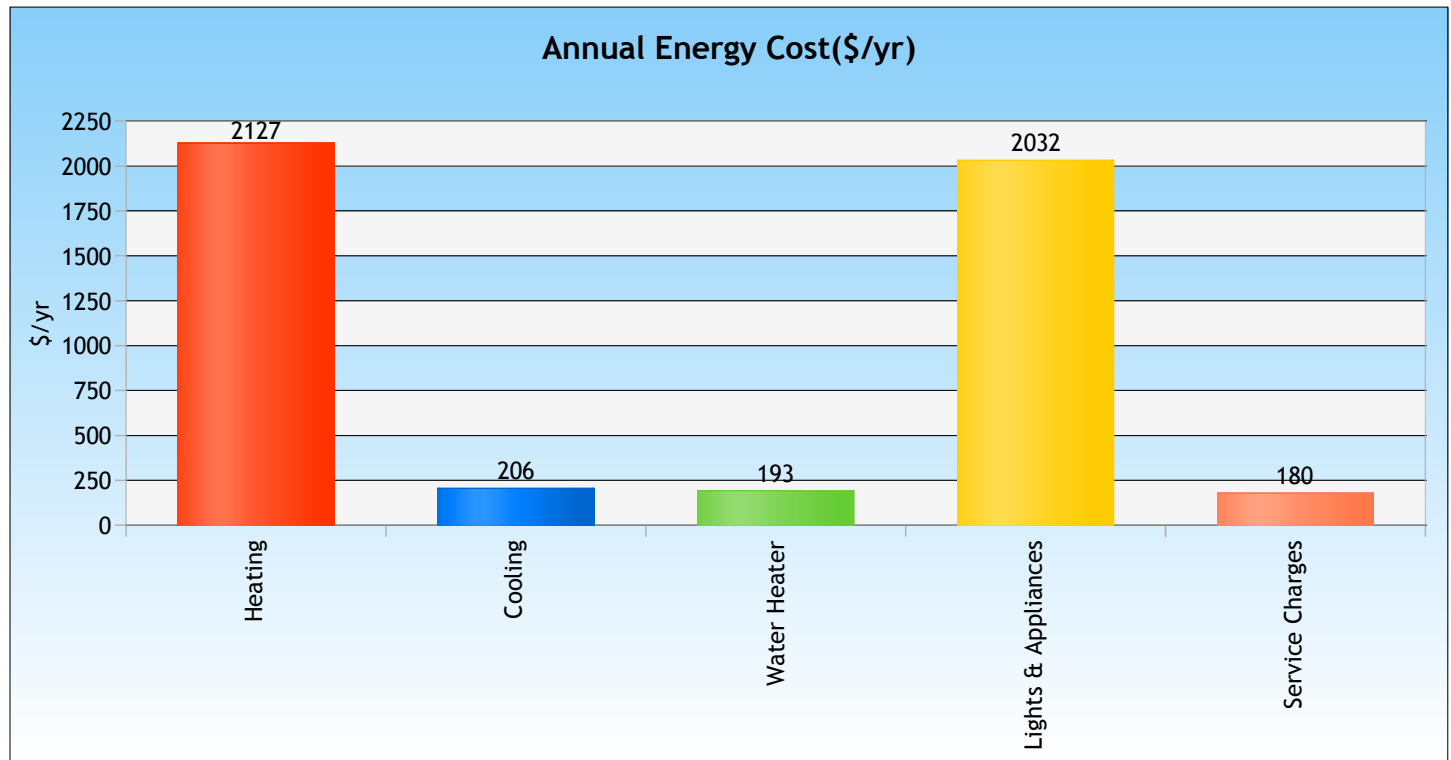
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Energy Cost and Features

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Annual Energy Costs

\$/yr

Heating	2127
Cooling	206
Water Heating	193
Lights & Appliances	2032
Photovoltaics	-0
Service Charges	180
Total	4738
Average Monthly(\$/Month)	395

Energy Features

Ceiling w/Attic	R50 Attic 24"oc U=0.020
Sealed Attic	None
Vaulted Ceiling	None
Above Grade Wall	SIP R26 U=0.034
Foundation Walls (Cond)	8-12"C R13 R0 R=13.0
Foundation Walls (Uncond)	None
Doors	St 1.75" R7.5 U=0.119
Windows	NFRC .30 / .26 U=0.300
Floors	None
Slab Floors	R0 Per, R10 Und 30' U=0.082
Infiltration	2208 CFM50
Infiltration Measure	Blower door
Mechanical Ventilation	Balanced: ERV, 214 cfm, 100.0 watts.
Interior Mass	None
Mechanical Equipment 1	Heating: Fuel-fired hydronic distribution, 160.0 kBtuh, 95.0 AFUE.
Mechanical Equipment 2	Heating: Fuel-fired hydronic distribution, 160.0 kBtuh, 95.0 AFUE.
Mechanical Equipment 3	Cooling: Air-source heat pump, 34.2 kBtuh, 18.0 SEER.
Mechanical Equipment 4	Cooling: Air-source heat pump, 54.0 kBtuh, 17.0 SEER.
Mechanical Equipment 5	Cooling: Air-source heat pump, 54.0 kBtuh, 17.0 SEER.
Mechanical Equipment 6	Cooling: Air-source heat pump, 18.0 kBtuh, 23.3 SEER.
Mechanical Equipment 7	Water Heating: Integrated, Prop, 0.76 EF, R-12 wrap.

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

REM/Rate - Residential Energy Analysis and Rating Software v16.3.2 Wisconsin

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Energy Cost and Features

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Energy Features

Mechanical Equipment 8	Water Heating: Integrated, Prop, 0.76 EF, R-12 wrap.
Programmable Thermostat	Heat=Yes; Cool=Yes
Ducts	NANA
Duct Leakage to Outside	NA
Total Duct Leakage	NA
Lights/Appliances	Rating Tab
Active Solar	None
Photovoltaics	0.00
Sunspace	No

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

Focus on Energy New Home Certification Report

File Number: 58-1825

Year Built: 2021

Certification Date: 12/22/2021

Builder File Number:

Property Address	Builder	Building Performance Consultant
2316 Uphoff Road	Ultimate Construction	EMF Home Consultants Inc
Cottage Grove, WI 53527	4827 Pierceville Road	Mark Fredenberg
	Cottage Grove, WI 53527	mfred999@gmail.com

General Building Information	
Area of conditioned space (sq ft)	12808
Finished floor area (sq ft)	11290
Volume (cu ft)	154897
Shell area (sq ft)	23784
Housing type	Single-family detached
Floors above grade	2
Number of bedrooms	5
Foundation type	Conditioned basement

Energy Efficiency Data				
	House	PV	Geo	Total
Est. summer peak reduction (kW)	1.85	0.00	0.00	1.85
Annual energy savings (kWh)	3586.36	0.00	0.00	3586.36
Annual energy savings (Therms)	0.00	0.00	0.00	0.00

Performance Data	
Percent more efficient than current code	47.72%
Estimated average monthly energy bill	\$380
MMBtu Savings	126
Whole House Ventilation	
Type	Balanced
Recommended ventilation rate (CFM)	158
TESTED ventilation rate (CFM)	214
Air Tightness	
Infiltration - TESTED (CFM50)	2208
ACH 50:	0.86
CFM50/sq ft shell:	0.09
Effective Leakage Area (ELA) (sq in):	121

Mechanical Systems					
	Type	Fuel Type	Efficiency	EAE Value	Capacity
Primary SPACE HEATING	Fuel-fired hydronic distribution	Propane	95.0 AFUE	170	160.0 KBtuh
Secondary SPACE HEATING	Fuel-fired hydronic distribution	Propane	95.0 AFUE	170	160.0 KBtuh
Primary SPACE COOLING	Air-source heat pump	Electric	18.0 SEER	N/A	34.2 KBtuh
Secondary SPACE COOLING	Air-source heat pump	Electric	17.0 SEER	N/A	54.0 KBtuh
	Type	Fuel Type	Efficiency	Recovery Eff	Gallons
Primary WATER HEATING	Integrated	Propane	0.76 EF	0.9	40
Secondary WATER HEATING	Integrated	Propane	0.76 EF	0.9	40

FOCUS ON ENERGY NEW HOME CERTIFICATION PROGRAM

Certified Energy-Efficient Home

2316 Uphoff Road
Cottage Grove, WI 53527

CERTIFIED ON 2021-12-22

Your New Home is Certified by Focus on Energy as
47.72% MORE ENERGY EFFICIENT
than what is currently required by Wisconsin state building code.

Builder File No:

Certification No: 58-1825

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RESNET Home Energy Rating Standard Disclosure

For home located at: 2316 Uphoff Road

City: Cottage Grove

State: WI

1. ☒ The Rater or Rater's employer is receiving a fee for providing the rating on this home.
2. ☒ In addition to the rating, the Rater or Rater's employer has also provided the following consulting services for this home.

- ☐ A. Mechanical system design
- ☐ B. Moisture control or indoor air quality consulting
- ☒ C. Performance testing and/or commissioning other than required for the rating itself
- ☐ D. Training for sales or construction personnel
- ☐ E. Other (specify below)

3. ☐ The Rater or Rater's employer is:

- ☐ A. The seller of this home or their agent
- ☐ B. The mortgagor for some portion of the financial payments on this home
- ☐ C. An employee, contractor or consultant of the electric and/or natural gas utility serving this home

4. ☐ The Rater or Rater's employer is a supplier or installer of products, which may include:

HVAC Systems

Thermal Insulation Systems

Air sealing of envelope or duct systems

Windows or window shading systems

Energy efficient appliances

Construction (builder, developer, construction contractor, etc.)

Other (specify below):

Installed in this home by: OR is in the business of:

<input type="checkbox"/> Rater	<input type="checkbox"/> Employer	<input type="checkbox"/> Rater	<input type="checkbox"/> Employer
<input type="checkbox"/> Rater	<input type="checkbox"/> Employer	<input type="checkbox"/> Rater	<input type="checkbox"/> Employer
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<input type="checkbox"/> Rater	<input type="checkbox"/> Employer	<input type="checkbox"/> Rater	<input type="checkbox"/> Employer

5. ☐ This home has been verified under the provisions of Chapter 6, Section 603 'Technical Requirements for Sampling' of the Mortgage Industry National Home Energy Rating Standard as set forth by the Residential Energy Services Network (RESNET).

I attest that the above information is true and correct to the best of my knowledge. As a Rater or Rating Provider I abide by the rating quality control provisions of the Mortgage Industry National Home Energy Rating Standard as set forth by the Residential Energy Services Network (RESNET). The national rating quality control provisions of the rating standard are contained in Chapter One 4.C.8. of the standard and are posted at http://resnet.us/standards/RESNET_Mortgage_Industry_National_HERS_Standards.pdf. The Home Energy Rating Standard Disclosure for this home is available from the rating provider.

Mark Fredenberg

Rater's Printed Name

2879310

Certification #

Rater's Signature

January 10, 2022

Date

RESNET Form 0300-2

REM/Rate - Residential Energy Analysis and Rating Software v16.3.2 Wisconsin

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