

Air Leakage

Property

LYNDA SUDLOW
42 WOODWARD RD.
PARSONSFIELD, ME 04047

Organization

HORIZON RESIDENTIAL ENERGY
SER
207-650-8126
DIANE MILLIKEN

HERS

Confirmed
10/9/2014
Rater ID:4702880

Weather: Portland, ME

FINAL_SUDLOW RESIDENCE
R15-42WoodwardRd-dmm.blg

Builder

RYAN BILODEAU

Whole House Infiltration

	Blower Door Test	
	Heating	Cooling
Natural ACH	0.11	0.09
ACH @ 50 Pascals	1.77	1.77
CFM @ 25 Pascals	185	185
CFM @ 50 Pascals	290	290
Eff. Leakage Area (sq.in)	15.9	15.9
Specific Leakage Area	0.00012	0.00012
ELA/100 sf shell (sq.in)	0.50	0.50

Duct Leakage

Leakage to Outside Units
CFM @ 25 Pascals
CFM25 / CFMfan
CFM25 / CFA
CFM per Std 152
CFM per Std 152 / CFA
CFM @ 50 Pascals
Eff. Leakage Area (sq.in)
Thermal Efficiency
Total Duct Leakage Units
Total Duct Leakage

Ventilation

Mechanical	Balanced	ASHRAE
Sensible Recovery Eff. (%)	70.0	62.2-2010
Total Recovery Eff. (%)	0.0	
Rate (cfm)	50	24
Hours/Day	12.0	24.0
Fan Watts	56.0	
Cooling Ventilation	Natural Ventilation	

ASHRAE 62.2 - Ventilation Requirements

The ASHRAE 62.2 flow rates shown above are the CONTINUOUS mechanical fresh air ventilation which will meet the 'whole-building' requirement under that version of the standard. Both values incorporate any appropriate 'infiltration credit'. Intermittent mechanical ventilation may be used if the flow rate is adjusted accordingly. For example, the runtime can be reduced to 12 hours per day using a doubled flow rate, as long as the system provides ventilation at least once every 3 hours. For more detail, refer to the appropriate standard.

ENERGY STAR v3.1 Home Report

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Builder
RYAN BILODEAU

Confirmed: - No Registry ID

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

	ENERGY STAR	As Designed
Heating	14.7	5.9
Cooling	3.0	4.5
Water Heating	8.9	0.2
Lights and Appliances	13.0	10.4
Total	39.6	21.0
HERS Index of Reference Design Home	63	33 HERS Index w/o PV
HERS Index Target (SAF Adjusted)	63	33 HERS Index
Size Adjustment Factor	1.00	

ENERGY STAR v3.1 Mandatory Requirements

X	Duct leakage at post construction better than or equal to ENERGY STAR v3.0 requirements.
X	Envelope insulation levels meet or exceed ENERGY STAR v3.0 requirements.
X	Slab on Grade Insulation must be > R-5, and at IECC 2009 Depth for Climate Zones 4 and above.
X	Envelope insulation achieves RESNET Grade I installation, or Grade II with insulated sheathing.
X	Windows meet the 2009 IECC Requirements - Table 402.1.1.
X	Duct insulation meets the EPA minimum requirements of R-6.
X	Mechanical ventilation system is installed in the home.
X	ENERGY STAR Checklists fully verified and complete.



This home MEETS or EXCEEDS the energy efficiency requirements
for designation as an EPA ENERGY STAR Version 3.1 Qualified Home.

HERS Index w/o PV <= HERS Index of Reference Design Home AND HERS Index <= HERS Index Target to comply.

Pollution Prevented

Type of Emissions	Reduction
Carbon Dioxide (CO ₂) - tons/yr	2.6
Sulfur Dioxide (SO ₂) - lbs/yr	6.5
Nitrogen Oxides (NO _x) - lbs/yr	5.9

Energy Cost Savings

	\$/yr
Heating	886
Cooling	3
Water Heating	485
Lights & Appliances	263
Total	1638

The energy savings and pollution prevented are calculated by comparing the Rated Home to the ENERGY STAR Version 3.1 Reference Home as defined in the ENERGY STAR Qualified Homes HERS Index Target Procedure for National Program Requirements, Version 3.1 promulgated by the Environmental Protection Agency (EPA). In accordance with RESNET Mortgage Industry National Home Energy Rating Systems Standards, building inputs affecting setpoints infiltration rates, window shading and the existence of mechanical systems may have been changed prior to calculating loads.

REM/Rate - Residential Energy Analysis and Rating Software v14.6

This information does not constitute any warranty of energy cost or savings.

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Home Energy Rating Certificate

Property
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PARSONSFIELD, ME 04047

HERS
Rating Type: Confirmed
Rating Date: 10/9/2014
Registry ID:

Certified Energy Rater: DIANE WILLIKEN
Rating Number:

Confirmed: - No Registry ID

HERS Index: 33

General Information

Conditioned Area	911 sq. ft.	House Type	Single-family detached
Conditioned Volume	9810 cubic ft.	Foundation	More than one type
Bedrooms	1		

Mechanical Systems Features

Air-source heat pump:	Electric, Htg: 10.5 HSPF, Clg: 23.0 SEER.
Water Heating:	Integrated, Electric, 0.95 EF, 80.0 Gal, R-10 wrap.
Duct Leakage to Outside	NA
Ventilation System	Balanced: HRV, 50 cfm, 56.0 watts.
Programmable Thermostat	Heat=Yes; Cool=Yes

Building Shell Features

Ceiling Flat	NA	Slab	R-60.0 Edge, R-60.0 Under
Sealed Attic	NA	Exposed Floor	NA
Vaulted Ceiling	R-111.0	Window Type	U-Value: 0.106, SHGC: 0.620
Above Grade Walls	R-59.0	Infiltration Rate	Htg: 290 Clg: 290 CFM50
Foundation Walls	R-58.0	Method	Blower door test

Lights and Appliance Features

Percent Interior Lighting	100.00	Range/Oven Fuel	Electric
Percent Garage Lighting	100.00	Clothes Dryer Fuel	Electric
Refrigerator (kWh/yr)	383	Clothes Dryer EF	3.01
Dishwasher (kWh/yr)	258	Ceiling Fan (cfm/Watt)	0.00

Estimated Annual Energy Cost

Use	MMBtu	Cost	Percent
Heating	5.9	\$186	23%
Cooling	4.5	\$73	9%
Hot Water	0.2	\$9	1%
Lights/Appliances	10.4	\$489	60%
Photovoltaics	-0.0	\$-0	-0%
Service Charges		\$60	7%
Total	21.0	\$816	100%

Criteria

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

TITLE
Company
Address
City, State, Zip
Phone #
Fax #

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