

2018 IECC Energy Cost Compliance

Property

Scott Hollowell
8382 McDougald Rd.
Broadway, NC 27505

Organization

Energy Modeling Agency
325 NC-42, Ahoskie, NC. 27910
Charlie Ashcom

Weather: Raleigh, NC

Hollowell Residence Spray Foam

Hollowell Residence Spray

Builder

Annual Energy Cost

\$/yr


	2018 IECC	As Designed
Heating	265	240
Cooling	252	221
Water Heating	89	89
Mechanical Ventilation Fan	35	11
SubTotal - Used to Determine Compliance	640	560
Lights & Appliances (minus MechVent)	486	466
Photovoltaics	-0	-0
Service Charge	120	120
Total	1246	1146

Mandatory Requirements

Annual Energy Cost Check	PASSES
Duct Insulation R-Value Check (per Section 405.2)	PASSES
Window U-Value and SHGC Check (per Section 402.5)	PASSES
Home Infiltration (Section 402.4.1)	PASSES
Duct Testing (Section 403.3.3)	PASSES
Mechanical Ventilation (Section 403.6)	PASSES
Mechanical Ventilation Fan Efficacy (Section 403.6.1)	PASSES
Mandatory Requirements Check Box (2018 IECC)	PASSES

This home **MEETS** the annual energy cost requirements of Section 405 of the 2018 International Energy Conservation Code based on a climate zone of 4A. In fact, this home surpasses the requirements by 9.2%.

Name | Charlie Ashcom
Organization | Energy Modeling Agency

Signature | 
Date | 20 January 2025

In accordance with IECC, building inputs, such as setpoints, infiltration rates, and window shading may have been changed prior to calculating annual energy cost. Furthermore, the standard reference design HVAC system efficiencies are set equal to those in the design home as specified in the 2018 IECC. These standards are subject to change, and software updates should be obtained periodically to ensure the compliance calculations reflect current federal minimum standards.

REM/Design - Residential Energy Analysis Software v16.0.2

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

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HOME CERTIFIED TO MEET THE PROVISIONS OF THE 2018 INTERNATIONAL ENERGY CONSERVATION CODE

This home built at
8382 McDougald Rd., Broadway, NC
by
exceeds the minimum requirements

Building Features

Ceiling Flat	R-21.0
Sealed Attic:	NA
Vaulted Ceiling	NA
Above Grade Walls	R-19.0
Foundation Walls	R-13.0
Exposed Floor	R-19.0
Slab	None

Duct	NA
Duct Leakage to Outside:	RESNET/HERS default
Total Duct Leakage:	Not Applicable
Infiltration:	Htg: 1.00 Clg: 1.00 ACH50
Window	U-Value: 0.330, SHGC: 0.450
Heating	Fuel-fired air distribution, Natural gas, 94.0 AFUE.
Cooling	Air conditioner, Electric, 15.0 SEER.
Water Heating	Instant water heater, Natural gas, 0.80 EF, 0.0 Gal.

The organization below certifies that the proposed building design described herein is consistent with the building plans, specifications, and other calculations submitted with the permit application. The proposed building has been designed to meet the 2018 IECC requirements in compliance with Chapter 4 based on Climate Zone 4A and with all mandatory requirements.

Name	Charlie Ashcom
Organization	Energy Modeling Agency

Signature	
Date	20 January 2025

The 2018 International Energy Conservation Code is a registered trademark of the International Code Council, Inc. ("ICC").
No version of this software has been reviewed or approved by ICC or its affiliates.
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2018 IECC Certificate

8382 McDougald Rd., Broadway, NC 27505

Building Envelope Insulation

Ceiling	R-21.0
Above Grade Walls	R-19.0
Foundation Walls	R-13.0
Exposed Floor	R-19.0
Slab	None
Infiltration	Htg: 1.00 Clg: 1.00 ACH50
Duct	NA
Total Duct Leakage	Not Applicable

Window Data

	U-Factor	SHGC
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Window	0.330	0.450
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Mechanical Equipment

HEAT: Fuel-fired air distribution, Natural gas, 94.0 AFUE.

COOL: Air conditioner, Electric, 15.0 SEER.

DHW: Instant water heater, Natural gas, 0.80 EF, 0.0 Gal.

Builder or Design Professional

Signature 