

# Home Energy Rating Certificate

## Final Report

Rating Date: 2022-01-10

Registry ID: 509978874

Ekotrope ID: ILKnGNk2



### HERS® Index Score:

# 40

Your home's HERS score is a relative performance score. The lower the number, the more energy efficient the home. To learn more, visit [www.hersindex.com](http://www.hersindex.com)

### Annual Savings

# \$1,720

\*Relative to an average U.S. home

### Home:

1612 Country Club Lane  
Spencer, IA 51106

### Builder:

Energy Panel Structures, Inc

### Your Home's Estimated Energy Use:

	Use [MBtu]	Annual Cost
Heating	86.5	\$111
Cooling	2.9	\$61
Hot Water	13.6	\$16
Lights/Appliances	45.3	\$872
Service Charges		\$390
Generation (e.g. Solar)	0.0	\$0
<b>Total:</b>	<b>148.3</b>	<b>\$1,451</b>

### This home meets or exceeds the criteria of the following:

2012 Iowa Energy Code  
2018 International Energy Conservation Code  
2015 International Energy Conservation Code  
2012 International Energy Conservation Code  
2009 International Energy Conservation Code  
2006 International Energy Conservation Code

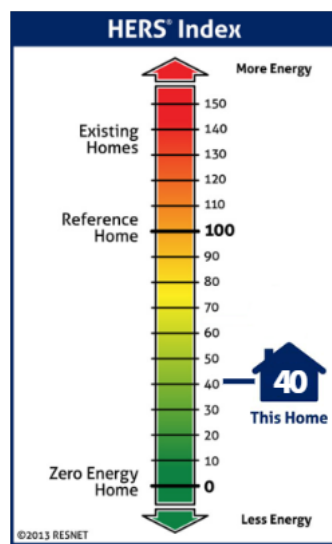
### Rating Completed by:

**Energy Rater:** Larry Emanuel  
RESNET ID: 2305325

**Rating Company:** Future Energy Dynamics  
11347 S 198th St, Gretna NE 68028  
402 661-9500

**Rating Provider:** EnergyLogic  
PO Box N, Berthoud, CO 80513  
(970) 556-0839

Larry Emanuel, Certified Energy Rater  
Digitally signed: 1/19/22 at 10:56 AM



### Home Feature Summary:

Home Type:	Single family detached
Model:	N/A
Community:	N/A
Conditioned Floor Area:	7,881 ft <sup>2</sup>
Number of Bedrooms:	5
Primary Heating System:	Furnace • Natural Gas • 95 AFUE
Primary Cooling System:	Air Conditioner • Electric • 15.1 SEER
Primary Water Heating:	Boiler • Natural Gas • 0.95 Energy Factor
House Tightness:	883 CFM50 (0.70 ACH50)
Ventilation:	164 CFM • 120 Watts
Duct Leakage to Outside:	83 CFM @ 25Pa (1.58 / 100 ft <sup>2</sup> )
Above Grade Walls:	R-26
Ceiling:	Attic, R-50
Window Type:	U-Value: 0.28, SHGC: 0.18
Foundation Walls:	R-24



Ekotrope RATER - Version:3.2.4.2815

The Energy Rating Disclosure for this home is available from the Approved Rating Provider.

This report does not constitute any warranty or guarantee.

# IECC 2018 Performance Compliance

**Property**

1612 Country Club Lane  
Spencer, IA 51106

1612 Country Club Lane  
1612 Country Club Ln

**Organization**

Future Energy Dynamics  
Larry Emanuel  
402 661-9500

**Builder**

Energy Panel Structures,  
Inc

**Inspection Status**

2022-01-10  
Rater ID (RTIN): 2305325  
RESNET Registered  
(Confirmed)

## Annual Energy Cost

Design	IECC 2018 Performance	As Designed
Heating	\$1,987	\$977
Cooling	\$256	\$186
Water Heating	\$308	\$308
Mechanical Ventilation	\$39	\$81
<b>SubTotal - Used to determine compliance</b>	<b>\$2,590</b>	<b>\$1,552</b>
Lights & Appliances w/out Ventilation	\$1,185	\$1,185
Onsite generation	\$0	\$0
<b>Total</b>	<b>\$3,776</b>	<b>\$2,738</b>

## Requirements

✓	405.3	Performance-based compliance passes by 40.1%
✓	R402.4.1.2	Air Leakage Testing Air sealing is 0.70 ACH at 50 Pa. It must not exceed 3.00 ACH at 50 Pa.
✓	R402.5	Area-weighted average fenestration SHGC
✓	R402.5	Area-weighted average fenestration U-Factor
✓	R404.1	Lighting Equipment Efficiency
✓	R403.6.1	Mechanical Ventilation Efficacy
✓	Mandatory Checklist	Mandatory code requirements that are not checked by Ekotrope must be met.
✓	IRC M1505.4.3	Mechanical Ventilation Rate
✓	R405.2	Duct Insulation

**Design exceeds requirements for IECC 2018 Performance compliance by 40.1%.**

As a 3rd party extension of the code jurisdiction utilizing these reports, I certify that this energy code compliance document has been created in accordance with the requirements of Chapter 4 of the adopted International Energy Conservation Code based on WOODBURY County. If rating is Projected, I certify that the building design described herein is consistent with the building plans, specifications, and other calculations submitted with the permit application. If rating is Confirmed, I certify that the address referenced above has been inspected/tested and that the mandatory provisions of the IECC have been installed to meet or exceed the intent of the IECC or will be verified as such by another party.

Name: Larry Emanuel

Signature:

Organization: Future Energy Dynamics

Digitally signed:

1/19/22 at 10:56 AM

### Ekotrope RATER - Version 3.2.4.2815

IECC 2018 Performance compliance results calculated using Ekotrope RATER's energy and code compliance algorithm.  
Ekotrope RATER is a RESNET Accredited HERS Rating Tool. All results are based on data entered by Ekotrope users.  
Ekotrope disclaims all liability for the information shown on this report.

# 1612 Country Club Lane

Spencer, IA 51106

Builder: Energy Panel Structures, Inc


**THIS HOME IS CERTIFIED TO MEET THE  
2018 INTERNATIONAL ENERGY CONSERVATION CODE**

## Building Features

<b>Ceiling</b> Attic, R-50	<b>Duct</b> Supply R-6.0, Return R-6.0
<b>Above Grade Walls</b> R-26	<b>Duct Leakage to Outside</b> 83 CFM @ 25Pa (1.58 / 100 ft <sup>2</sup> )
<b>Foundation Walls</b> R-24	<b>Total Duct Leakage</b> 718 CFM @ 25Pa (Post-Construction)
<b>Framed Floor</b> N/A	<b>Heating</b> Furnace • Natural Gas • 95 AFUE
<b>Slab</b> R-0.0 Perimeter, R-0.0 Under	<b>Cooling</b> Air Conditioner • Electric • 15.1 SEER
<b>Infiltration</b> 883 CFM50 (0.70 ACH50)	<b>Water Heating</b> Boiler • Natural Gas • 0.95 Energy Factor
<b>Window</b> U-Value: 0.28, SHGC: 0.18	

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Ekotrope RATER - Version 3.2.4.2815

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## **IECC 2018 Label**

**1612 Country Club Lane**

Ekotrope RATER - Version: 3.2.4.2815

HERS® Index Score: 40

### **Building Envelope Specs**

Ceiling: R-50

Above Grade Walls: R-26

Foundation Walls: R-24

Exposed Floor: N/A

Slab: R-0

Infiltration: 883 CFM50 (0.70 ACH50)

Duct Insulation: Supply: R6, Return: R6

Duct Lkg to Outdoors: 83 CFM @ 25Pa (1.58 / 100 ft<sup>2</sup>)

### **Window & Door Specs**

U-Value: 0.28, SHGC: 0.18

Door: R-7

### **Mechanical Equipment Specs**

Heating: Furnace • Natural Gas • 95 AFUE

Cooling: Air Conditioner • Electric • 15.1 SEER

Hot Water: Boiler • Natural Gas • 0.95 Energy Factor

Average Mechanical Ventilation: 125.7 CFM

### **Builder or Design Professional**

Signature: \_\_\_\_\_



# RESNET HOME ENERGY RATING Standard Disclosure



For home(s) located at: 1612 Country Club Lane , Spencer,

IA

Check the applicable disclosure(s):

- ☐ 1. The Rater or the Rater's employer is receiving a fee for providing the rating on this home.
- ☐ 2. In addition to the rating, the Rater or the 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)

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

- ☐ A. The seller of this home or their agent
- ☐ B. The mortgagor for some portion of the financed 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:

Products	Installed in this home by		OR is in the business of	
HVAC systems	<input type="checkbox"/> Rater	<input type="checkbox"/> Employer	<input type="checkbox"/> Rater	<input type="checkbox"/> Employer
Thermal insulation systems	<input type="checkbox"/> Rater	<input type="checkbox"/> Employer	<input type="checkbox"/> Rater	<input type="checkbox"/> Employer
Air sealing of envelope or duct systems	<input type="checkbox"/> Rater	<input type="checkbox"/> Employer	<input type="checkbox"/> Rater	<input type="checkbox"/> Employer
Energy efficient appliances	<input type="checkbox"/> Rater	<input type="checkbox"/> Employer	<input type="checkbox"/> Rater	<input type="checkbox"/> Employer
Construction (builder, developer, construction contractor, etc)	<input type="checkbox"/> Rater	<input type="checkbox"/> Employer	<input type="checkbox"/> Rater	<input type="checkbox"/> Employer
Other (specify): <input type="text"/>	<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). Rater Certification #: 2305325

Name: Larry Emanuel

Signature:

Organization: Future Energy Dynamics

Digitally signed:

1/19/22 at 10:56 AM

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 102.1.4.6 of the standard and are posted at

<https://standards.resnet.us>

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