# **Energy Cost and Features**

Property 1314 W 21st St Unit C Houston, TX 77008

Weather:Houston, TX Project # 1314 W 21st St Unit C Houston Tx Plan 2235 Snyder.blg Organization

Snyder Energy Services 832-878-2914 Frank Wagner

Builder

HERS

Projected Rating 10/5/2014

Rating No:License #

00132720

Rater ID:7356719

Annual Energy Costs	\$/yr
Heating	232
Cooling	347
Water Heating	149
Lights & Appliances	924
Photovoltaics	-0
Service Charges	158
Total	1811
Average Monthly(\$/Month)	151

### **Energy Features**

Duct Leakage to Outside

Ceiling w/Attic	None
Sealed Attic	None
Vaulted Ceiling	R-21 Spray Foam U=0.046, with Barrier
Above Grade Wall	R-13 GL I Foam U=0.083
Foundation Walls (Cond)	None
Foundation Walls (Uncond)	None
Doors	Fiberglass U=0.128
Windows	ENERGY STAR CZ-25 U=0.300
Floors	R-19 Foam 5.5" U=0.052
Slab Floors	None
Infiltration	Htg: 2050 Clg: 2050 CFM50
Infiltration Measure	Blower door test
Mechanical Ventilation	Supply Only: 150 cfm, 50.0 watts.
Interior Mass	None
Mechanical Equipment 1	Heating: Fuel-fired air distribution, 50.0 kBtuh, 95.0 AFUE.
Mechanical Equipment 2	Heating: Fuel-fired air distribution, 60.0 kBtuh, 95.0 AFUE.
Mechanical Equipment 3	Cooling: Air conditioner, 24.0 kBtuh, 16.0 SEER.
Mechanical Equipment 4	Cooling: Air conditioner, 36.0 kBtuh, 16.0 SEER.
Mechanical Equipment 5	Water Heating: Instant water heater, Gas, 0.95 EF.
Programmable Thermostat	Heat=Yes; Cool=Yes
Ducts	R-6.0Conditioned space

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

0.00 CFM @ 25 Pascals

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#### **Energy Features**

Total Duct Leakage 85.00 CFM @ 25 Pascals
Lights/Appliances Defaults
Active Solar None
Photovoltaics 0.00
Sunspace No

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

### 2009 IECC Energy Cost Compliance

Property

1314 W 21st St Unit C Houston, TX 77008

Weather: Houston, TX

Project #

Organization HERS

Snyder Energy Services Projected Rating 832-878-2914 10/5/2014

Frank Wagner Rating No:License #

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Builder Rater ID:7356719

1314 W 21st St Unit C Houston Tx

Plan 2235 Snyder.blg

Annual Energy Cost		\$/yr	
	2009 IECC	As Designed	
Heating	416	333	
Cooling	481	408	
Water Heating	248	149	
SubTotal - Used to Determine Compliance	1145	890	
Lights & Appliances	918	907	
Photovoltaics	-0	-0	
Service Charge	158	158	
Total	2221	1955	
Manufatana Danisinana auta			
Mandatory Requirements			
Window SHCC Chack (Section 402 5)			

Window SHGC Check (Section 402.5)		
Window SHGC Value (Design must be equal or lower)	0.500	0.250
Home Infiltration (Section 402.4.2)		PASSES
Duct Leakage (Section 403.2.2)		PASSES

This home MEETS the annual energy cost requirements of Section 405 of the 2009 International Energy Conservation Code based on a climate zone of 2A. In fact, this home surpasses the requirements by 22.3%.

Name Frank Wagner
Organization Snyder Energy Services

pate 7 October 2014

### **Mechanical Systems**

Heating Fuel-fired air distribution, 50.0 kBtuh, 95.0 AFUE. Heating Fuel-fired air distribution, 60.0 kBtuh, 95.0 AFUE.

Cooling Air conditioner, 24.0 kBtuh, 16.0 SEER.
Cooling Air conditioner, 36.0 kBtuh, 16.0 SEER.
Water Heating Instant water heater, Gas, 0.95 EF.

Window-to-Floor Area Ratio: 0.15

Blower door test Htg: 2050 Clg: 2050 CFM50

### 2009 IECC Energy Cost Compliance

**Property** 1314 W 21st St Unit C Houston, TX 77008

Organization **Snyder Energy Services** 832-878-2914 Frank Wagner

**Builder** 

**HERS Projected Rating** 10/5/2014 Rating No:License # 00132720 Rater ID:7356719

Weather: Houston, TX Project # 1314 W 21st St Unit C Houston Tx

Plan 2235 Snyder.blg

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 2009 IECC. These standards are subject to change, and software updates should be obtained periodically to ensure the compliance calculations reflect current federal minimum standards.

## **Home Energy Rating Certificate**



**Projected Rating** HERS Index: 56

### Projected Rating: Based on Plans - Field Confirmation Required.

### **General Information**

Conditioned Area 2235 sq. ft. House Type Single-family detached Conditioned Volume 22350 cubic ft. Foundation Open crawl space/raised floor

Bedrooms

### **Mechanical Systems Features**

Heating: Fuel-fired air distribution, Natural gas, 95.0 AFUE. Heating: Fuel-fired air distribution, Natural gas, 95.0 AFUE.

Cooling: Air conditioner, Electric, 16.0 SEER.

Duct Leakage to Outside 0.00 CFM25.

> Ventilation System Supply Only: 150 cfm, 50.0 watts.

Programmable Thermostat Heat=Yes; Cool=Yes

### **Building Shell Features**

Ceiling Flat NA Slab None R-19.0 Sealed Attic NA **Exposed Floor** Vaulted Ceiling R-21.0 w/RB Window Type U-Value: 0.300, SHGC: 0.250 Above Grade Walls R-13.0 Infiltration Rate Htg: 2050 Clg: 2050 CFM50

Foundation Walls Blower door test NA Method

### **Lights and Appliance Features**

Percent Interior Lighting 90.00 Range/Oven Fuel Natural gas Percent Garage Lighting 0.00 Clothes Dryer Fuel Natural gas Refrigerator (kWh/yr) 775.00 Clothes Dryer EF 2.67 Dishwasher Energy Factor 0.46 Ceiling Fan (cfm/Watt) 0.00

Registry ID

**Rating Number** License # 00132720

Certified Energy Rater

Frank Wagner 10/5/2014

Rating Date Rating Ordered For

Estimated Annual Energy Cost						
Use	MMBtu	Cost	Percent			
Heating	14.5	\$234	13%			
Cooling	7.6	\$345	19%			
Hot Water	10.4	\$162	9%			
Lights/Appliances	24.3	\$907	50%			
Photovoltaics	-0.0	\$-0	-0%			
Service Charges		\$158	9%			
Total	56.9	\$1807	100%			
Criteria						

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

TITLE

Company

Address

City, State, Zip

Phone #

Fax #