

# Energy Cost and Features

**Property**  
1314 W 21st St Unit A  
Houston, TX 77018

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

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

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

**Builder**

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

## Energy Features

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
Duct Leakage to Outside	0.00 CFM @ 25 Pascals

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

**REM/Rate - Residential Energy Analysis and Rating Software v14.5.1**

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

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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

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832-878-2914  
Frank Wagner

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Projected Rating  
10/5/2014  
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00132720  
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**Builder**

## Annual Energy Cost

	\$/yr	
	2009 IECC	As Designed
Heating	416	333
Cooling	481	408
Water Heating	248	149
<b>SubTotal - Used to Determine Compliance</b>	<b>1145</b>	<b>890</b>
Lights & Appliances	918	907
Photovoltaics	-0	-0
Service Charge	158	158
<b>Total</b>	<b>2221</b>	<b>1955</b>

## Mandatory Requirements

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

Signature |   
Date | 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

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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

1314 W 21st St Unit A  
Houston, TX 77018



**5 Stars Plus**  
**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	3		

## 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
Sealed Attic	NA	Exposed Floor	R-19.0
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	NA	Method	Blower door test

## 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

Certified Energy Rater

Rating Date

Rating Ordered For

License # 00132720

Frank Wagner

10/5/2014

## 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%
<b>Total</b>	<b>56.9</b>	<b>\$1807</b>	<b>100%</b>

## Criteria

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

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

**REM/Rate - Residential Energy Analysis and Rating Software v14.5.1**

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