

# Thanks for joining today's ENERGY STAR® webinar!

The image shows a screenshot of the GoToWebinar toolbar with several callout boxes providing instructions. The toolbar itself has a 'File View Help' menu at the top. Below it are two main sections: 'Audio' and 'Questions'. The 'Audio' section has radio buttons for 'Telephone' (selected) and 'Mic & Speakers'. Below these are fields for 'Dial:', 'Access Code:', and 'Audio PIN:'. A link for 'Problem dialing in?' is also present. The 'Questions' section has a text input area with a placeholder '[Enter a question for staff]' and a 'Send' button. At the bottom of the toolbar is the 'GoToWebinar' logo.

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Everyone will be muted, but you can type in questions at any time and we’ll answer them at the end of the presentation.

We'll get started soon.  
Here's some information about your webinar toolbar.



# Dollars and Sense: Modeling Cost Savings in ENERGY STAR homes

September 29, 2016

3:00 PM EDT



## What is the Goal of This Presentation?





## Poll Questions

Let's first get a sense of where you're all coming from: 4 quick poll questions for Raters.

1. How long have you been performing energy ratings?
2. How long have you been rating ENERGY STAR Certified Homes?
3. Which regions do you work in as a Home Energy Rater? (AK, HI, and Tropics please write answer in chat box)
4. What's the average HERS Score of the homes that you verify?



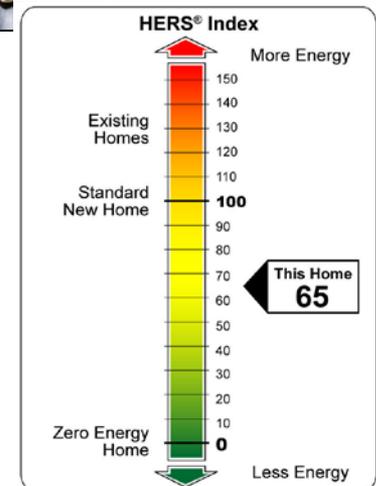
## Open-Ended Questions

- We have a few questions you can answer at any point during the webinar (see “Chat” in the sidebar).
  - How do you currently start the conversation with your clients about opportunities to cut costs? What’s their response?
  - What resources or support could ENERGY STAR provide to help your clients achieve ENERGY STAR cost-effectively?

**Now, on to the topic at hand...**

## The business case for ENERGY STAR

- The ENERGY STAR brand is more recognizable than HERS and other energy rating programs
  - The ENERGY STAR label is recognized by 87% of consumers
  - 92% say that it influences their purchasing decisions
- But what about its marketability to **builders**?





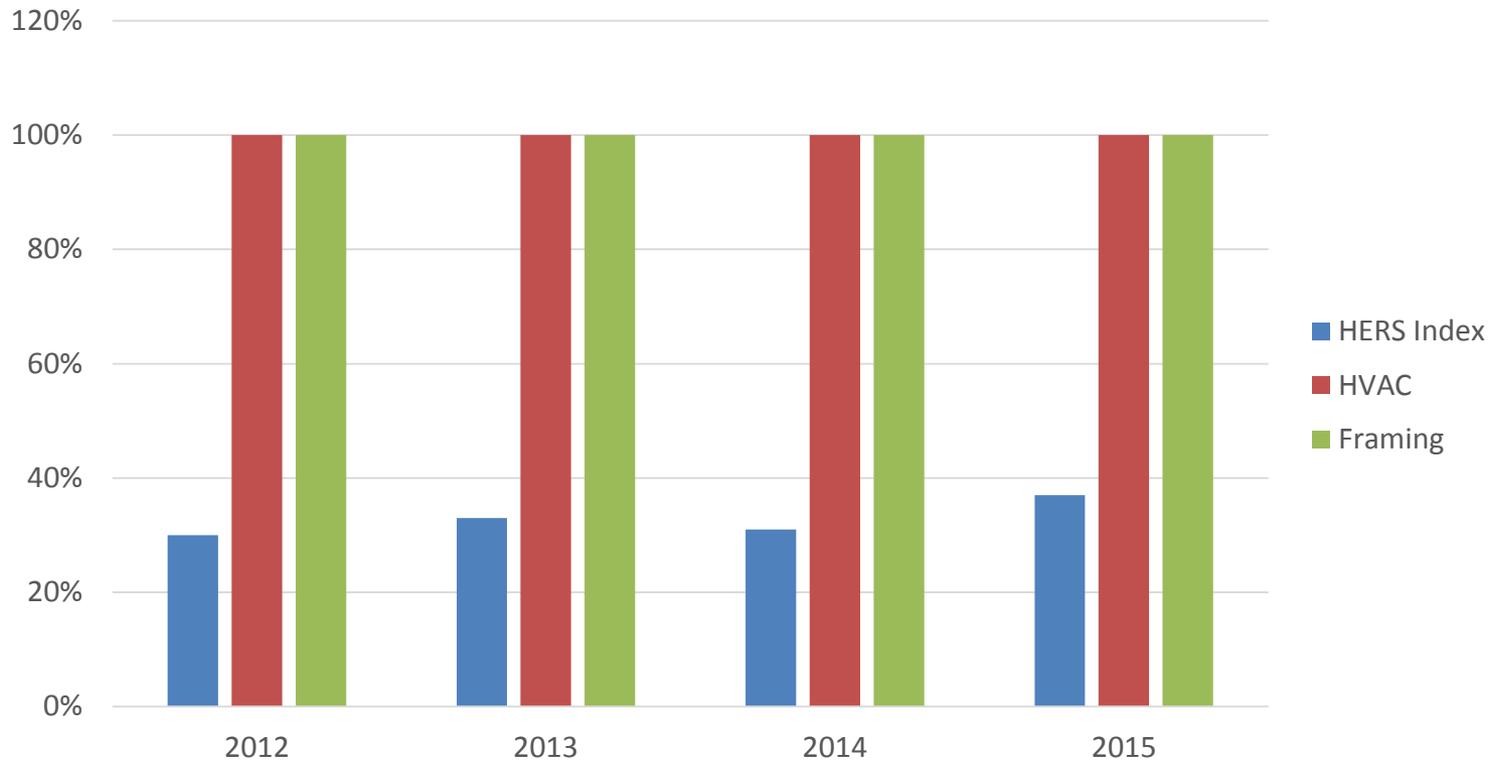
## The business case for ENERGY STAR

- A builder's decision to build ENERGY STAR homes beyond just HERS rated homes often comes down to two questions:
  - “will this be hard?” and
  - “will the extra effort pay off?”
- Brand recognition, code preparation, and quality assurance are obvious benefits ENERGY STAR offers beyond a HERS score, but adding cost savings makes an even stronger case
- Let's identify some commonly missed cost-cutting opportunities that meet ENERGY STAR program requirements



## Market penetration of subcontractors

- Compared to virtually every other subcontractor, Raters are the lowest cost subcontractor
- But there is still a long way to go for the HERS Index to become the norm when building a new home on the U.S.





## What's a builder really paying for?

- Currently for a HERS Index, a builder is paying Raters to assess the energy performance of homes built
- Why does the builder care about the energy performance of a house?
  - A utility is giving them money to care
  - They are trying to sell more homes
- What if you could pass along significant cost-cutting opportunities on a per house basis when rating an ENERGY STAR home as opposed to pursuing just a HERS score?



## Assess the costs associated with the HERS Index

- The national average HERS Index over for 2013 was 64, in 2014 was 63, and as of right now it was likely somewhere in the mid to low 60s
- The average HERS Index for a home to meet ENERGY STAR ranges from 75 to 68 depending on the size of the house
- That means builders are paying a premium for an additional 5 to 8 HERS Index points, which they don't need to achieve the ENERGY STAR



## A few points off the batt:

- Flexibility is key
  - We offer suggestions and examples in this webinar, but you should apply your experience and organization's practices
- The HERS Index does not account for everything
  - For example, quality installation and equipment sizing have bigger consequences than are reflected in HERS scores
- We are demo-ing files from REM/Rate in this presentation because it is the most widely-used rating software, but cost-saving measures can be modified for EnergyGauge or Ekotrope

## And Now...How to cut costs from an ENERGY STAR home!





## Find the difference between ENERGY STAR and HERS Index

### House Characteristics:

- Built in Abilene Texas, CZ 3
- Square footage = 2917 sq. ft.
- Bedrooms = 4
- Home type = Single Family Detached
- HERS Index = 66
- Target HERS Index to meet ENERGY STAR = 69

Let's make some costs cuts!



# Find the difference between ENERGY STAR and HERS Index

## Areas of Focus:

- Insulation
- HVAC
- Infiltration
- Lighting



# Insulation recommendation

Rim and Band Joist Properties Summary

#	Name	Area	Contin Ins	Framed Ins
1	Exposed	70.3	3.0	13.0
2	Attic	21.0	3.0	13.0

Rim and Band Joist Properties

Name:  Joist Cavity Ins (R-v

Area (sq ft):  Joist Cavity Ins Thic

Continuous Ins (R-value):  Insulation Grade:

Joist Spacing (in. o.c.):

Location:

**Programs**

V3.0 ENERGY STAR	Passes
V3.0* ENERGY STAR Gu...	Passes
V3.1 ENERGY STAR	Fails
Tax Credit	Fails
DOE Zero Energy Ready ...	Fails
HERS Index	<b>66</b>
NY HERS Score	N/A

# Insulation recommendation

Rim and Band Joist Properties Summary

#	Name	Area	Contin Ins	Framed Ins	Thi
1	Exposed	70.3	0.0	13.0	
2	Attic	21.0	0.0	13.0	

Rim and Band Joist Properties

Name:       Joist Cavity Ins (R-val

Area (sq ft):       Joist Cavity Ins Thickr

Continuous Ins (R-value):       Insulation Grade:

Joist Spacing (in. o.c.):

Location:

**Programs**

V3.0 ENERGY STAR	Passes
V3.0* ENERGY STAR Gu...	Passes
V3.1 ENERGY STAR	Fails
Tax Credit	Fails
DOE Zero Energy Ready ...	Fails
HERS Index	<b>66</b>
NY HERS Score	N/A



# Advanced Framing

**Above-Grade Wall Type Library**

**Component**

- R-11 Steel Framed Mobile Home Wall
- ICF Wall R-20
- ICF Wall R-15
- Max Wood Std U-0.222
- Max Mason Std U-0.25
- R-13, R-0.2 Grd I\*\*
- R-13 Grd I\*\*

New Delete

**Programs**

V3.0 ENERGY STAR	Passes
V3.0* ENERGY STAR Gu...	Passes
V3.1 ENERGY STAR	Fails
Tax Credit	Fails
DOE Zero Energy Ready ...	Fails
HERS Index	66
NY HERS Score	N/A

Input Mode: Quick Fill

Wall Type Name: R-13 Grd I\*\*

Wall Construction: Standard Wood Frame

Continuous Insulation R-Value: 0.0 Stud Spacing (in oc): 16.0

Frame Cavity Insulation R-Value: 13.0 Stud Width (in): 1.5

Cavity Insulation Thickness (in): 3.5 Stud Depth (in): 3.5

Cavity Insulation Grade: I Framing Factor: 0.1900

Block Cavity Insulation R-Value: 0.0 Use Default

Gypsum Thickness (in): 0.500

Note:

OK Cancel Help

## Advanced Framing



Advanced framing details include using the minimum amount of wall studs permitted by code.



# HVAC Equipment

#	Type	Htg Eff
1	80 AFUE Gas Furn 48k**	80.0 A
2	80 AFUE Gas Furn 36k**	80.0 A
3	16SEER A/C 3.5 ton**	
4	16SEER A/C 2.5 ton**	
5	40 gal. 0.62EF Gas**	

Programs	
V3.0 ENERGY STAR	Passes
V3.0* ENERGY STAR Gu...	Passes
V3.1 ENERGY STAR	Fails
Tax Credit	Fails
DOE Zero Energy Ready ...	Fails
HERS Index	66
NY HERS Score	N/A

Programs		Eff	Clg Eff	Dhw Eff
V3.0 ENERGY STAR	Passes	80 AFUE		
V3.0* ENERGY STAR Gu...	Passes	80 AFUE		
V3.1 ENERGY STAR	Fails		14.5 SEER	
Tax Credit	Fails		14.5 SEER	
DOE Zero Energy Ready ...	Fails			0.62 EF
HERS Index	68			
NY HERS Score	N/A			



# Infiltration

**Whole House Infiltration**

Measurement Type: Blower door test

Heating Season Infiltration Value: 2350 CFM @ 50 Pasca

Cooling Season Infiltration Value: 2350

Shelter Class: 4

Code Verification: Tested

**Programs**

V3.0 ENERGY STAR	Passes
V3.0* ENERGY STAR Gu...	Passes
V3.1 ENERGY STAR	FAILS
Tax Credit	FAILS
DOE Zero Energy Ready ...	FAILS
HERS Index	68
NY HERS Score	N/A

**Whole House Infiltration**

Measurement Type: Blower door test

Heating Season Infiltration Value: 3000 CFM @ 5

Cooling Season Infiltration Value: 3000

Shelter Class: 4

Code Verification: Tested

**Programs**

V3.0 ENERGY STAR	FAILS
V3.0* ENERGY STAR Gu...	Passes
V3.1 ENERGY STAR	FAILS
Tax Credit	FAILS
DOE Zero Energy Ready ...	FAILS
HERS Index	70
NY HERS Score	N/A



# Lighting

Lighting			
CFL (%):	<input type="text" value="85.0"/>	Interior Fixtures	Exterior Fixtures(%): <input type="text" value="100.0"/>
Pin-Based FL (%):	<input type="text" value="0.0"/>		Garage Fixtures(%): <input type="text" value="100.0"/>

Lighting			
CFL (%):	<input type="text" value="100.0"/>	Interior Fixtures	
Pin-Based FL (%):	<input type="text" value="0.0"/>		

Programs	
V3.0 ENERGY STAR	Passes
V3.0* ENERGY STAR Gu...	Passes
V3.1 ENERGY STAR	Fails
Tax Credit	Fails
DOE Zero Energy Ready ...	Fails
HERS Index	69
NY HERS Score	N/A



**!** HERS to ENERGY STAR

Measure	HERS Points
Removed costs associated with flash and batt insulation at the rim joists	No Change
Advanced Framing techniques	No Change
16 SEER AC to 14.5 SEER AC	HERS Index up 2 points
Adjusted infiltration	HERS Index up 2 points
Increased lighting from 85% to 100%	HERS Index down 1 point
<b>Total</b>	<b>HERS 69 and ENERGY STAR</b>



## Cost Savings

Measure	Costs saved
Removed costs associated with flash and batt insulation at the rim joists	\$400
Advanced Framing techniques	\$150
16 SEER AC to 14.5 SEER AC	\$600
Increased lighting from 85% to 100%	(-\$50)
Reduce Cooling Size of AC Units	\$250
<b>Total</b>	<b>\$1400</b>



# 1 Design Review

Measure	Cost over HERS
Credentialed HVAC contractor	+\$25
HVAC designer completes <u>ENERGY STAR HVAC Design Report</u>	+\$15
Whole-house ventilation system	+\$150 to \$375
Rater completes <u>Rater Design Review Checklist</u>	+\$25
<b>Total</b>	<b>-\$215 - \$440</b>



## 2 Pre-Drywall Inspection

Measure	Cost over HERS
Rater completes pre-drywall tasks on the Rater Field Checklist	+\$75



### 3 Final Inspection

Measure	Cost over HERS
Contractor & Rater conduct static pressure test	-\$25
Contractor conducts refrigerant charge test	-\$25
Contractor fills out <u>HVAC Commissioning Checklist</u>	-\$25
Bedroom comfort vents & verification	-\$200
Rater verifies vent. system, exhaust fans, & filter; completes remaining Rater Field Checklist	-\$50
<b>Total</b>	<b>-\$325</b>



## 4 Total Savings

Measure	Cost over HERS
Total Savings from going from HERS 66 to HERS 69	\$1400
Total Costs going from HERS Index House to ENERGY STAR	\$615 - \$840
<b>Total Savings for the builder</b>	<b>\$560 - \$785</b>



# Find the difference between ENERGY STAR and HERS Index

## House Characteristics:

- Built in Houston Texas, CZ 2
- Square footage = 2400 sq. ft.
- Bedrooms = 4
- Home type = Single Family Detached
- HERS Index = 60
- Target HERS Index to meet ENERGY STAR **v3.1** = 64

While Version 3.1 may be more stringent, savings are still possible! Let's see how...



# Find the difference between ENERGY STAR and HERS Index

## Areas of Focus:

- Insulation
- HVAC
- Lighting



# Slab-edge Insulation

Slab Floor Properties Summary

#	Name	Type	Area	De...	Full ...	Gra...
1	slab	R-5 Perimeter	1200	0.0	138	138

Slab Floor Properties

Name:

Type: R-5 Perimeter R-5.0 Per ...

Area (sq ft):  Full Perimeter (ft):

Depth Below Grade (ft):  Total Exposed Perimeter (ft):   
(0 if on-grade)

On-Grade Exposed Perimeter (ft):

**Programs**

V3.0 ENERGY STAR	Passes
V3.0* ENERGY STAR Gu...	Passes
V3.1 ENERGY STAR	Passes
Tax Credit	Passes
DOE Zero Energy Ready ...	Fails
HERS Index	60
NY HERS Score	



# Slab-edge Insulation

Slab Floor Properties Summary

#	Name	Type	Area	De...	Full ...	Gra...
1	slab	Uninsulated	1200	0.0	138	138

Slab Floor Properties

Name:

Type: Uninsulated R-0 ...

Area (sq ft):  Full Perimeter (ft):

Depth Below Grade (ft):  Total Exposed Perimeter (ft):   
(0 if on-grade)

On-Grade Exposed Perimeter (ft):

**Programs**

V3.0 ENERGY STAR	Passes
V3.0* ENERGY STAR Gu...	Passes
V3.1 ENERGY STAR	Passes
Tax Credit	FAILS
DOE Zero Energy Ready ...	FAILS
HERS Index	62
NY HERS Score	



# Advanced Framing

Above-Grade Wall Type Library

Component	U-Value	State
R-11 Steel Framed	0.130	
Mobile Home Wall	0.104	
ICF Wall R-20	0.046	
ICF Wall R-15	0.059	
Max Wood Std U-0.222	0.222	
Max Mason Std U-0.25	0.249	
R-13, R-0.2 Grd I**	0.083	tmp
R-13 Grd I**	0.080	tmp

Input Mode:  Quick Fill Site-Built  Path Layer

Wall Type Name:

Wall Construction:

Continuous Insulation R-Value: 
 Stud Spacing (in oc):

Frame Cavity Insulation R-Value: 
 Stud Width (in):

Cavity Insulation Thickness (in): 
 Stud Depth (in):

Cavity Insulation Grade: 
 Framing Factor:

Block Cavity Insulation R-Value: 
 Use Default

Gypsum Thickness (in):

Note:

## Advanced Framing



Advanced framing details include using the minimum amount of wall studs permitted by code.



# HVAC Equipment

Mechanical Equipment Properties Summary

#	Type	Htg Eff	Clg
1	80AFUE Gas Furn 48k <sup>*****</sup> ...	80.0 AFUE	
2	16 SEER QI 4 Ton		16.0
3	50 gal. 0.59EF Gas <sup>*****</sup> ...		

**Programs**

V3.0 ENERGY STAR	Passes
V3.0* ENERGY STAR Gu...	Passes
V3.1 ENERGY STAR	Passes
Tax Credit	Fails
DOE Zero Energy Ready ...	Fails
HERS Index	62
NY HERS Score	

Mechanical Equipment Properties Summary

#	Type	Htg Eff	Clg
1	80AFUE Gas Furn 48k <sup>*****</sup> ...	80.0 AFUE	
2	14.5 SEER QI 4 ton <sup>*****</sup> ...		14.5
3	50 gal. 0.59EF Gas <sup>*****</sup> ...		

**Programs**

V3.0 ENERGY STAR	Passes
V3.0* ENERGY STAR Gu...	Passes
V3.1 ENERGY STAR	Passes
Tax Credit	Fails
DOE Zero Energy Ready ...	Fails
HERS Index	63
NY HERS Score	

NIST Study: <https://www.nist.gov/news-events/news/2014/11/underperforming-energy-efficiency-hvac-equipment-suffers-due-poor>



## Lighting (*optional if score is a concern*)

Lighting

CFL (%):  Interior Fixtures

Pin-Based FL (%):

Programs	
V3.0 ENERGY STAR	Passes
V3.0* ENERGY STAR Gu...	Passes
V3.1 ENERGY STAR	Passes
Tax Credit	Fails
DOE Zero Energy Ready ...	Fails
HERS Index	63
NY HERS Score	

Lighting

CFL (%):  Interior Fixtures

Pin-Based FL (%):

Programs	
V3.0 ENERGY STAR	Passes
V3.0* ENERGY STAR Gu...	Passes
V3.1 ENERGY STAR	Passes
Tax Credit	Fails
DOE Zero Energy Ready ...	Fails
HERS Index	62
NY HERS Score	



**!** HERS to ENERGY STAR

Measure	HERS Points
Removed costs associated with R-5 slab perimeter insulation	HERS Index up 2 points
Advanced Framing techniques	No Change
16 SEER AC to 14.5 SEER AC	HERS Index up 1 point
[Optional: Increase lighting from 85% to 100%]	[HERS Index down 1 point]
<b>Total (w/o lighting)</b>	<b>HERS 63 and ENERGY STAR 3.1</b>



## Cost Savings

Measure	Costs saved
Removed costs associated with R-5 slab perimeter insulation	\$480
Advanced Framing techniques	\$150
16 SEER AC to 14.5 SEER AC	\$300
[Optional: Increase lighting from 85% to 100%]	[-\$45]
<b>Total w/o lighting</b>	<b>\$930</b>
<b>Total w/ lighting</b>	<b>\$885</b>



# 1 Design Review

Measure	Cost over HERS
Credentialed HVAC contractor	+\$25
HVAC designer completes <u>ENERGY STAR HVAC Design Report</u>	+\$15
Whole-house ventilation system	+\$150 to \$375
Rater completes <u>Rater Design Review Checklist</u>	+\$25
<b>Total</b>	<b>-\$215 - \$440</b>



## 2 Pre-Drywall Inspection

Measure	Cost over HERS
Rater completes pre-drywall tasks on the Rater Field Checklist	+\$75



### 3 Final Inspection

Measure	Cost over HERS
Contractor & Rater conduct static pressure test	-\$25
Contractor conducts refrigerant charge test	-\$25
Contractor fills out <u>HVAC Commissioning Checklist</u>	-\$25
Bedroom comfort vents & verification	-\$200
Rater verifies vent. system, exhaust fans, & filter; completes remaining Rater Field Checklist	-\$50
<b>Total</b>	<b>-\$325</b>



## 4 Total Savings

Measure	Cost over HERS
Total Savings from going from HERS 60 to HERS 63	\$930
Total Costs going from HERS Index House to ENERGY STAR	\$615 - \$840
<b>Total Savings for the builder</b>	<b>\$90 - \$315</b>



## Find the difference between ENERGY STAR and HERS Index

### House Characteristics:

- Built in St. Louis, Missouri, CZ 4
- Square footage = 2400 sq. ft.
- Bedrooms = 4
- Home type = Single Family Detached
- HERS Index = 64
- Target HERS Index to meet ENERGY STAR = 72

Let's make some costs cuts!



# Find the difference between ENERGY STAR and HERS Index

## Areas of Focus:

- Insulation
- HVAC
- Infiltration
- Lighting



# Insulation recommendation

Rim and Band Joist Properties Summary

#	Name	Area	Contin I...	Frame...	Thickn...	Spac...
1	Exposed	70.0	3.0	13.0	3.5	16.0
2	Attic	70.0	3.0	13.0	3.5	16.0

---

Rim and Band Joist Properties

Name:  Joist Cavity Ins (R-v

Area (sq ft):  Joist Cavity Ins Thick...

Continuous Ins (R-value):  Insulation Grade:

Joist Spacing (in. o.c.):

Location:

**Programs**

V3.0 ENERGY STAR	Passes
V3.0* ENERGY STAR Gu...	Fails
V3.1 ENERGY STAR	Fails
Tax Credit	Fails
DOE Zero Energy Ready ...	Fails
HERS Index	64
NY HERS Score	



# Insulation recommendation

Rim and Band Joist Properties Summary

#	Name	Area	Contn...	Frame...	Thickn...	Spec...
1	Exposed	70.0	0.0	13.0	3.5	16.0
2	Attic	70.0	0.0	13.0	3.5	16.0

New Delete

Rim and Band Joist Properties

Name:  Joist Cavity Ins (R-value):

Area (sq ft):  Joist Cavity Ins Thickness:

Continuous Ins (R-value):  Insulation Grade:

Joist Spacing (in. o.c.):

Location:

**Programs**

V3.0 ENERGY STAR	Passes
V3.0* ENERGY STAR Gu...	Fails
V3.1 ENERGY STAR	Fails
Tax Credit	Fails
DOE Zero Energy Ready ...	Fails
HERS Index	64
NY HERS Score	

# Advanced Framing

**Above-Grade Wall Type Library**

Component
R-11 Steel Framed
Mobile Home Wall
ICF Wall R-20
ICF Wall R-15
Max Wood Std U-0.222
Max Mason Std U-0.25
R-13, R-0.2 Grd I**
R-13 Grd I**

New Delete Cut

**Programs**

V3.0 ENERGY STAR	Passes
V3.0* ENERGY STAR Gu...	Fails
V3.1 ENERGY STAR	Fails
Tax Credit	Fails
DOE Zero Energy Ready ...	Fails
HERS Index	64
NY HERS Score	

Input Mode:  Quick Fill Site-Built  Path Layer

Wall Type Name: R-13 Grd I\*\*

Wall Construction: Standard Wood Frame

Continuous Insulation R-Value: 0.0	Stud Spacing (in oc): 16.0
Frame Cavity Insulation R-Value: 13.0	Stud Width (in): 1.5
Cavity Insulation Thickness (in): 3.5	Stud Depth (in): 3.5
Cavity Insulation Grade: I	Framing Factor: 0.1900
Block Cavity Insulation R-Value: 0.0	Use Default <input type="checkbox"/>
Gypsum Thickness (in): 0.500	

Note: \_\_\_\_\_

OK Cancel Help

## Advanced Framing



Advanced framing details include using the minimum amount of wall studs permitted by code.





# Infiltration

Whole House Infiltration

Measurement Type: Blower door test

Heating Season Infiltration Value: 1900

Cooling Season Infiltration Value: 1900

Shelter Class: 4

Code Verification: Tested

CFM @

Programs	
V3.0 ENERGY STAR	Passes
V3.0* ENERGY STAR Gu...	Fails
V3.1 ENERGY STAR	Fails
Tax Credit	Fails
DOE Zero Energy Ready ...	Fails
HERS Index	66
NY HERS Score	


Whole House Infiltration

Measurement Type: Blower door test

Heating Season Infiltration Value: 2200

Cooling Season Infiltration Value: 2200

Shelter Class: 4

Code Verification: Tested

CFM @

Programs	
V3.0 ENERGY STAR	Passes
V3.0* ENERGY STAR Gu...	Fails
V3.1 ENERGY STAR	Fails
Tax Credit	Fails
DOE Zero Energy Ready ...	Fails
HERS Index	67
NY HERS Score	



# Lighting

Lighting

CFL (%):  Interior Fixtures

Pin-Based FL (%):

Lighting

CFL (%):  Interior Fixtures

Pin-Based FL (%):

Programs	
V3.0 ENERGY STAR	Passes
V3.0* ENERGY STAR Gu...	FAILS
V3.1 ENERGY STAR	FAILS
Tax Credit	FAILS
DOE Zero Energy Ready ...	FAILS
HERS Index	67
NY HERS Score	

Programs	
V3.0 ENERGY STAR	Passes
V3.0* ENERGY STAR Gu...	FAILS
V3.1 ENERGY STAR	FAILS
Tax Credit	FAILS
DOE Zero Energy Ready ...	FAILS
HERS Index	68
NY HERS Score	



**!** HERS to ENERGY STAR

Measure	HERS Points
Removed costs associated with flash and batt insulation at the rim joists	No Change
Advanced Framing techniques	No Change
16 SEER AC to 14.5 SEER AC	HERS Index up 2 points
Adjusted infiltration	HERS Index up 1 point
Decreased lighting from 100% to 80%	HERS Index up 1 point
<b>Total</b>	<b>HERS 68 and ENERGY STAR</b>



## \$ Cost Savings

Measure	Costs saved
Removed costs associated with flash and batt insulation at the rim joists	\$400
Advanced Framing techniques	\$150
16 SEER AC to 14.5 SEER AC	\$600
Reduced Caulking	\$60
Decreased Lighting from 100% to 80%	\$50
<b>Total</b>	<b>\$1260</b>



# 1 Design Review

Measure	Cost over HERS
Credentialed HVAC contractor	+\$25
HVAC designer completes <u>ENERGY STAR HVAC Design Report</u>	+\$15
Whole-house ventilation system	+\$150 to \$375
Rater completes <u>Rater Design Review Checklist</u>	+\$25
<b>Total</b>	<b>-\$215 - \$440</b>



## 2 Pre-Drywall Inspection

Measure	Cost over HERS
Rater completes pre-drywall tasks on the Rater Field Checklist	+\$75



### 3 Final Inspection

Measure	Cost over HERS
Contractor & Rater conduct static pressure test	-\$25
Contractor conducts refrigerant charge test	-\$25
Contractor fills out <u>HVAC Commissioning Checklist</u>	-\$25
Bedroom comfort vents & verification	-\$200
Rater verifies vent. system, exhaust fans, & filter; completes remaining Rater Field Checklist	-\$50
<b>Total</b>	<b>-\$325</b>



## 4 Total Savings

Measure	Cost over HERS
Total Savings from going from HERS 64 to HERS 68	\$1260
Total Costs going from HERS Index House to ENERGY STAR	\$615 - \$840
<b>Total Savings for the builder</b>	<b>\$420 - \$645</b>



## Summary: How HERS Raters Help Builders

Builders want to save money while meeting customer expectations to keep up sales:

- 1. Explain cost-cutting measures.** For example, advanced framing is less expensive AND more comfortable/efficient.
- 2. Think of cost savings in dollars and cents.** Trimming a little here and there is an effective and doable approach.
- 3. An instantly-recognized, govt.-backed, trusted label is a plus.** Saving money on construction materials helps, but don't forget other value-adds that come with ENERGY STAR partnership: free marketing & educational tools, program support, and brand recognition.



## Q&A

- Here is one additional the open-ended question. We'll take a moment to discuss and answer write-in questions as time permits.
  - How do you currently start the conversation with clients about opportunities to cut costs? What's their response?
  - What do you think of these cuts and cost savings? Would this work for your area (climate zone, builder preferences, market demand, etc.)?



## Wrap-Up

- You can send us your REM files for personalized help modeling cost cuts that meet ENERGY STAR requirements.
- For any questions that we did not get to, please e-mail [Hillary.Tipton@icf.com](mailto:Hillary.Tipton@icf.com).
- As a reminder, all attendees will receive a copy of this slide show after the webinar.
- THANK YOU for partnering with ENERGY STAR!



## ENERGY STAR Certified Homes

### Web:

Main: [www.energystar.gov/newhomespartners](http://www.energystar.gov/newhomespartners)  
Technical: [www.energystar.gov/newhomesguidelines](http://www.energystar.gov/newhomesguidelines)  
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### Email:

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