



**PPL companies**

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# **Marketing of the HERS Index to Improve Building Performance**

***Bill Cooper, Program Manager***  
*LG&E and KU Energy-Saving New Homes*

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# LG&E and KU Energy-Saving New Homes

- Program Accomplishments
- Program Profiles and Transition
  - ENERGY STAR 2.0 Profile
  - ENERGY STAR 2.5/3 Transition
  - EnergySmart Strategic Builder Option (SBO)
- Impact To Marketing
- Program Support



# Program National Recognition

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- 2009 RESNET Market Transformation Award
- 2010 ENERGY STAR® Partner of the Year – Program Delivery
- 2011 ENERGY STAR Partner of the Year - Program Delivery
- 2012 Program designated the nation's first RESNET recognized ENERGY SMART Program (May 8, 2012)



# 2.0 ENERGY STAR<sup>®</sup> 2007 – 2011

- Tactical directives support rater infrastructure development, builder outreach and development.
- “New Rater” incentives offer recovery of education and equipment costs
- Builder rebates offer rebates tied to square footage and building type
- Early tactics tie to prescriptive requirements



# 2.0 ENERGY STAR<sup>®</sup> 2007 – 2011

## Rebates

| MAXIMUM REBATE BY BUILDING TYPE/SIZE (SQ.FT.) |        |           |        |
|---|--------|-----------|--------|
|   | ≤ 2500 | 2501-6500 | ≥ 6501 |
| Single Family                                 | \$450  | \$600     | \$750  |
| Multi-Single                                  | \$325  | \$450     |        |
| Multifamily*                                  | \$225  |           |        |

Categorized by square footage and building type

# 2.0 ENERGY STAR® 2007 – 2011

## **KY Residential Building Code = 2006 IECC/IRC**

- Chapter 11, Energy Efficiency Amended Out
- Code equivalent to HERS Index 100+



# 2.0 ENERGY STAR® 2007 – 2011

## Results

- Builder participation: 123 (20% growth each yr.)
- Average Program Homes HERS Index 76
- Market accepted incremental costs to build: \$1,900 + or 5% dependent on home size
- New construction market penetration exceeding 18%
- All kWh; CCF and KW goals exceeded

# 2.5/3.0 Transition

- 2.5 Rolled Out 7/1/2011
- 3.0 Implementation 1/1/2012
- 2.5/3.0 Key Changes
  - Heating and Cooling Efficiencies
  - Insulation (Conditioned Basements)
  - Duct Insulation and Sealing
  - HVAC Commissioning
  - Mechanical Ventilation
  - Rating Cost





# 2.5/3.0 Transition

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- EPA projects 50% builder drop-out rate
- Program builders' project 80-90% drop-out rate
- KY Residential Building Code remains in place till Oct. 2012 (HERS Index @ 100+)
- Incremental costs to build homes increases \$3,000+
- Downstream costs to customers > \$10K

## 2.5/3.0 Transition

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- Must alleviate fears until Code update and continued re-education are complete.
- Expand strategic initiative
  - Continue to protect infrastructure (raters)
  - Mitigate builder losses due to mandatory 3.0
- Integrate less intrusive builder option that supports ASHRAE 62.2, but with less costs.

## 2.5/3.0 Transition

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- Incentivize performance
- Leverage the HERS Index
- Create a "Strategic Builder Option" to ENERGY STAR
- Identify Co-Brand to help offset loss of ENERGY STAR
- Minimize losses under filing (energy, demand, CCF)

# 2.5/3.0 Transition

## Leverage on an already existing national name

- RESNET SmartHome
- EnergySmart Builder
- EnergySmart Contractor

Enter... "A RESNET EnergySmart Program"



# 2.5/3.0 Transition

- 100% Rated Homes
- No Sampling (SF, MS; MF)
- Integrated education of HERS Index
- Integration of Builder MOUs—Web
- Collateral Integration



# 2.5/3.0 Transition

## Incentivize Performance with Dual Strategy

- Leverage HERS Index
- Protect Infra-structure
- Minimize builder losses
- Losses under filing kWh, KW and CCF

| Single Family       |         |   |         |
|---------------------|---------|---|---------|
| HERS INDEX          |         | ENERGY STAR Version<br>2.5/3 Qualified Home | \$1,200 |
| 85-81               | \$440   |   |         |
| 80-71               | \$500   |   |         |
| 70-61               | \$640   |   |         |
| 60-51               | \$900   |   |         |
| 50-0                | \$1,200 |   |         |
| Multi-Single Family |         |   |         |
| HERS INDEX          |         | ENERGY STAR Version<br>2.5/3 Qualified Home | \$750   |
| 85-81               | \$330   |   |         |
| 80-71               | \$375   |   |         |
| 70-0                | \$480   |   |         |
| Multifamily         |         |   |         |
| HERS INDEX          |         | ENERGY STAR Version<br>2.5/3 Qualified Home | \$450   |
| 85-81               | \$220   |   |         |
| 80-71               | \$250   |   |         |
| 70-0                | \$320   |   |         |

# 2.5/3.0 Transition

**Create Strategic Builder Option to ENERGY STAR, yet maintain performance and safety...An EnergySmart Program Home**

What is an EnergySmart Home in context to Program?

- *ENERGY STAR<sup>®</sup> = Energy-Saving Home*
- *EnergySmart = Energy-Saving Home*
- *EnergySmart Home ≠ ENERGY STAR*

# 2.5/3.0 Transition

## An EnergySmart Program Home...Introduction to Scope

- Compliance with two checklists completed during the construction process
- Meet or exceed required thresholds for overall home air leakage and duct leakage
- Installation of energy efficient appliances, light fixtures, HVAC equipment, insulation, and windows





# 2.5/3.0 Transition

## Checklist #1: Thermal Enclosure Rater Checklist

- ENERGY STAR and EnergySmart Applicable
- The rater must check the following for compliance with ENERGY STAR requirements:
  - Proper insulation installation (no voids or gaps)
  - Properly aligned air barriers to compliment insulation
  - Proper installation of energy efficient windows
  - Air sealing all penetrations to create a "tight" envelope

# 2.5/3.0 Transition

## Checklist #2 & #3: HVAC Quality Installation Checklists

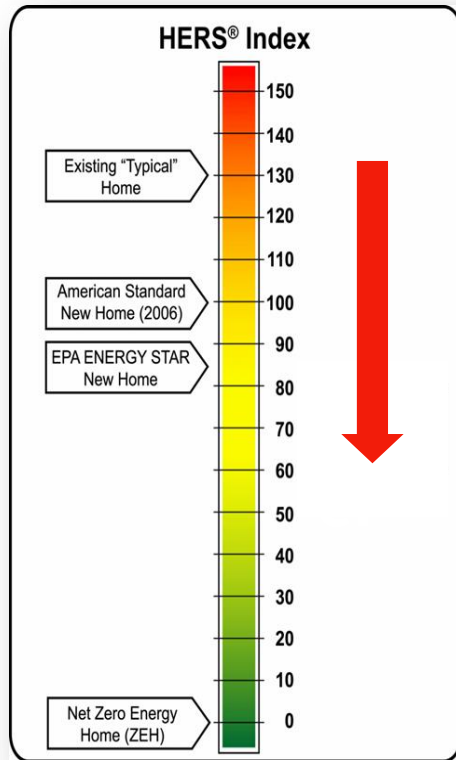
- ENERGY STAR checklist is more extensive
- The rater and contractor check for ENERGY STAR compliance:
  - Proper fresh air ventilation
  - Proper sizing of equipment
  - Properly installed ductwork
  - Prevention of contamination (CO, "dirty air", etc.)
  - Verify equipment (furnace/heat pump/thermostat) settings and installation

# 2.5/3.0 Transition

## Checklist #4: Water Management Contractor Checklist

- Not required for EnergySmart Homes
- The rater checks compliance with ENERGY STAR requirements:
  - Prevention of water and/or moisture intrusion into the home
  - Damp proofing and proper drainage of the gutter system and foundation/slab
  - Prevention of the installation of water damaged materials
  - Installation of moisture resistant materials in the proper locations

# Design Performance



## HERS Index By Year

| Year | Average All | Avg. Less Top Tier |
|------|-------------|--------------------|
| 2009 | 77.8        | 76.7               |
| 2010 | 76.8        | 72.7               |
| 2011 | 74.6        | 71                 |
| 2012 | 72.4        | 69                 |
| 2013 | 71.5        | 66                 |
| PTD  | 75.1        | 71.7               |

**Market penetration exceeding 24%**

# Customer Messaging

## Buyers Enjoy Peace of Mind by Knowing the HERS Index Score



- Doing a home energy rating through a certified RESNET Home Energy Rater gives you the security of knowing how energy efficient your home really is and how you can improve your HERS Index Score.

# Customer Messaging

## It Pays to Know the HERS Index Score BEFORE You Buy!


- Know the projected energy costs of living in the home you are planning to buy.
- This means more “purchasing power”



# Customer Messaging



## A Low HERS Index Score Adds VALUE and COMFORT to a Home

- A more energy efficient home can command a higher resale price while improving the quality of life enjoyed by you and your family.



**There are lots of reasons your customers will feel good about an energy-efficient home. Including the savings on their utility bills.**

If you're building new homes, don't miss the opportunity to give your customers the benefits of an energy-efficient home. ENERGY STAR® and HERS-label homes are 15-30% more efficient, have higher resale values and offer better protection from drafts, pollution, noise, moisture, and wasted energy – leaving you with satisfied clients, less callbacks, and more referrals. LG&E and KU's Energy-Saving New Homes Program can get you started with technical training classes, an authorized HERS rater, and rebates to help offset inspection costs. Get started today by visiting [lge-ku.com/build](http://lge-ku.com/build) or call 1-800-356-5467.



# Collaterals

## Provided to builders

- Yard Signs
- POP Kits (Point of Promotion)
- Window Decals
- Consumer Brochures







# Web

[Active Program Builders List](#)

[HERS Raters List](#)

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**RESNET**  
RESIDENTIAL ENERGY SERVICES NETWORK

Learn about ENERGY EFFICIENCY | What are energy RATINGS AND ASSESSMENTS | Why choose a RESNET PROFESSIONAL

**RESNET SmartHome Newsletter**  
Get all the LATEST NEWS on HOME ENERGY!  
Valid Email  
**SIGN UP NOW!**

Know your **HERS Index Score!**  
Understand how your home compares energy-wise with other similar homes.  
**WHAT'S THE HERS INDEX? >**

**The HERS Index**  
Find out what it is, how it works and why it's important to you!

**RESNET SmartHome**  
Get good advice on making your home more energy efficient!

**Energy Saving Tips**  
Our energy saving tips could help you save BIG money!

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Find us on Facebook  
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## RESNET

RESIDENTIAL ENERGY SERVICES NETWORK

### What is the HERS Index?

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The Home Energy Rating System (HERS) Index is the INDUSTRY STANDARD by which a home's energy efficiency is measured. It's also the NATIONALLY RECOGNIZED system for inspecting and calculating a home's energy performance.

#### What does a HERS Rating say about a house?

The HERS Index MEASURES A HOME'S ENERGY EFFICIENCY and there are a lot of great reasons to have a home energy assessment performed on your house.

It can tell you so much about the home you live in, like how efficiently it's operating and where you can make modifications for greater energy savings. When you're selling your home, a low HERS rating can command a higher resale price. And when you're buying a home you can anticipate the costs of energy bills and efficiency upgrades.

#### How does the HERS Index work?

Discover how the HERS Index works for yourself!

Launch our Interactive HERS Index Model and find out what the numbers could mean for you!

Click and drag the Score Indicator

Making your Home Energy Efficient

What are Ratings and Assessments?

Why use a RESNET Professional?

Tips and Articles on Energy Efficiency

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Find a Local RESNET Professional Near You

Increase home comfort while saving energy and money

The RESNET INTERACTIVE HERS Index  
<http://www.resnet.us/hers-index>

# Web

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## RESNET SmartHome

4 7 21

### THE RESNET INTERACTIVE HOUSE

Take the pledge to save energy at home! Join with millions of Americans to take small, individual steps that make a big difference in the fight against climate change. Click on the buttons below for Home Energy Saving Tips.

CHOOSE A ROOM +



Home RESNET SmartHome

The RESNET INTERACTIVE HERS Index  
<http://www.resnet.us/smarthome>

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[www.lge-ku.com/build](http://www.lge-ku.com/build)

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