



PPL companies

Maximizing Resources for Success

Landyn H. Garmon

landyngarmon@magrann.com

ENERGY STAR New Homes Sponsor Meeting 2012



Agenda

- ➔ Introduction: the LG&E and KU Energy-Saving New Homes Program
 - ENERGY STAR Version 2.0
 - ENERGY STAR Versions 2.5/3
- ➔ Incentive Development
 - Quantifying the cost of energy efficient upgrades for ENERGY STAR Versions 2.5/3
 - Implementing a Progressive Incentive Structure
- ➔ Influencing Change in the Appraisal Industry
 - Key Players
 - Articulating the Problem
 - Legislating Change



The LG&E and KU Program Structure

Version 2.0 Incentive Structure

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

*Initial program launch in 2009



The LG&E and KU Program Structure

- ➔ Emphasis on infrastructure development
 - Limited ENERGY STAR construction in service territory prior to Program introduction
 - Objective: to eliminate the “psychological hump” of paying for rating cost
- ➔ Incentive amounts tied square footage and building type
- ➔ Capped amounts based on rating cost
 - Expanded services included:
 - KY Green Building (similar to the NAHB Green Building program)
 - Advanced Lighting Package
 - Indoor Air Plus
 - Limiting incentive amounts to rating costs inadvertently “set” the market price of ratings

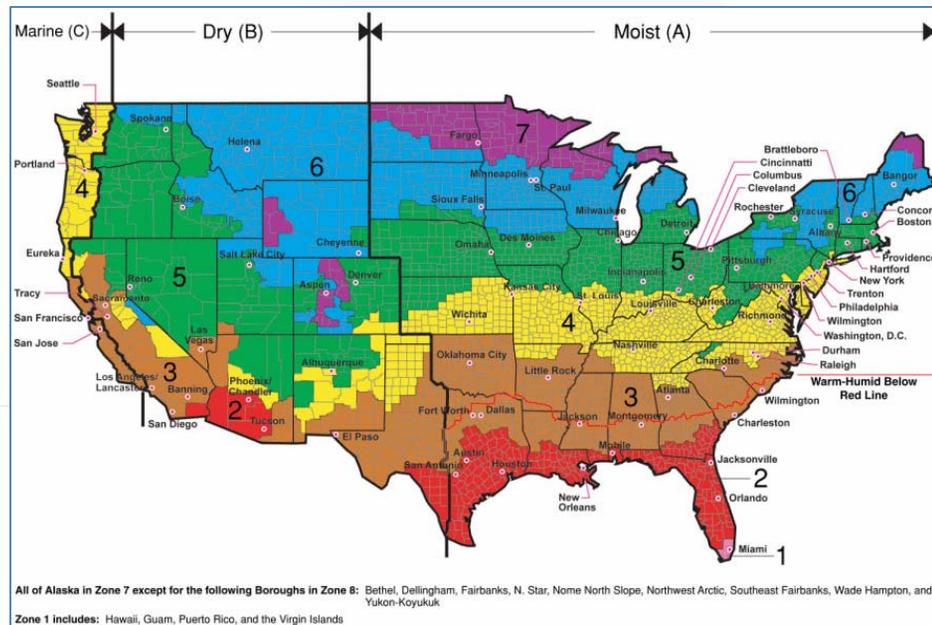


Quantifying the Cost of Upgrades

→ Step 1: Identify Key Changes

— Climate Zone 4

- Heating and Cooling Efficiencies
- Windows
- Insulation (Conditioned Basements)
- Duct Insulation and Sealing
- HVAC Commissioning
- Mechanical Ventilation
- Rating Cost



Quantifying the Cost of Upgrades

→ Step 2: EDUCATE!

- Critical to dispel misconceptions about Version 2.5/3 compliance requirements
- Utilize a combination of live training sessions and written communication to increase exposure
- Target all program participants - not just builders
 - Key sub-contractors:
 - HVAC
 - Insulation
 - Framing



Energy-Saving New Homes Program

Technical Training Series: 2012 HVAC Contractor Compliance (including EPA Orientation)

Feb. 23, 2012

9:00 a.m. to 4:00 p.m.
HBA of Lexington
3146 Custer Drive
Lexington, KY 40517

Feb. 24, 2012

9:00 a.m. to 4:00 p.m.
HBA of Louisville
1000 N. Hurtsbourne Pkwy
Louisville, KY 40517



Please Register by Fri., Feb. 17

For more information:

Email rebekahphillips@magrann.com
or call **Rebekah Phillips** at 502-627-3534

Refreshments and
Lunch Provided

Who Should Attend?

- ◆ HVAC Contractors
- ◆ Builders and General Contractors
- ◆ Raters welcome

HVAC contractors must be credentialed by an EPA recognized QA provider in order to install systems in Version 3 ENERGY STAR Qualified Homes.

MaGrann Associates provides customized training for HVAC contractors based on three compliance areas that have emerged as "must know" for those contractors providing high performing systems for builders of ENERGY STAR Qualified Homes:

- ACCA Standard 5-HVAC Quality Installation Specification
- HVAC System Quality Installation Contractor Checklist
- HVAC System Quality Installation Rater Checklist

The session includes the ACCA orientation presentation which will allow attendees to skip straight to ACCA's credentialing test.

Quantifying the Cost of Upgrades

→ Step 3: Survey Program Participants

- Include all affected parties:
 - Builders
 - HVAC Contractors
 - Insulation Contractors
 - Framers
 - Raters
- Utilized Raters as primary outreach and delivery vehicle for the program
- Provided a formatted spreadsheet with an itemized list of upgrades necessary to qualify for Version 2.5/3 compliance
- Provided Non-disclosure Agreement to encourage participation and ensure privacy of proprietary pricing information



Implementing a Progressive Incentive Structure

→ Step 4: Reconcile Budget

- LG&E and KU Program is a fixed-budget DSM funded program with a 7 year filing cycle
- Estimate Program Participation utilizing feedback from the Program-wide Participant Survey
 - Face-to-face meetings with “key producers”
- Key factors considered:
 - EPA Version 2.5/3 Implementation schedule
 - Historical participation rates
 - IECC 2009 Code adoption schedule



The LG&E and KU Program Structure

Version 2.5/3 Incentive Structure

Single Family			
HERS INDEX		ENERGY STAR Version 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 2.5/3 Qualified Home	\$750
85-81	\$330		
80-71	\$375		
70-0	\$480		
Multifamily			
HERS INDEX		ENERGY STAR Version 2.5/3 Qualified Home	\$450
85-81	\$220		
80-71	\$250		
70-0	\$320		

*Launched in 2011



Implementing a Progressive Incentive Structure

→ Step 5: Finalize Program Structure

- “Hybrid” approach: Introduced an “introductory” tier to retain builders
 - Lower incentives than ENERGY STAR Version 2.5/3
 - Retains program participation while pushing builders to ENERGY STAR participation as code adoption advances
 - Estimated IECC 2009 Code enforcement: January of 2013
- Model savings vs. filing goals at estimated participation levels
- Simplified the message!
 - ENERGY STAR compliance can be daunting to comprehend for those builders not intimately familiar with the rating process
 - Empowered Raters to promote the program by providing marketing and educational materials



Influencing Change in the Appraisal Industry

➔ Identifying the Problem

Q: What sells a home?

A: Bathrooms and Kitchens

Why?

Marketability = Visibility: The majority of energy efficient features in the home are invisible...



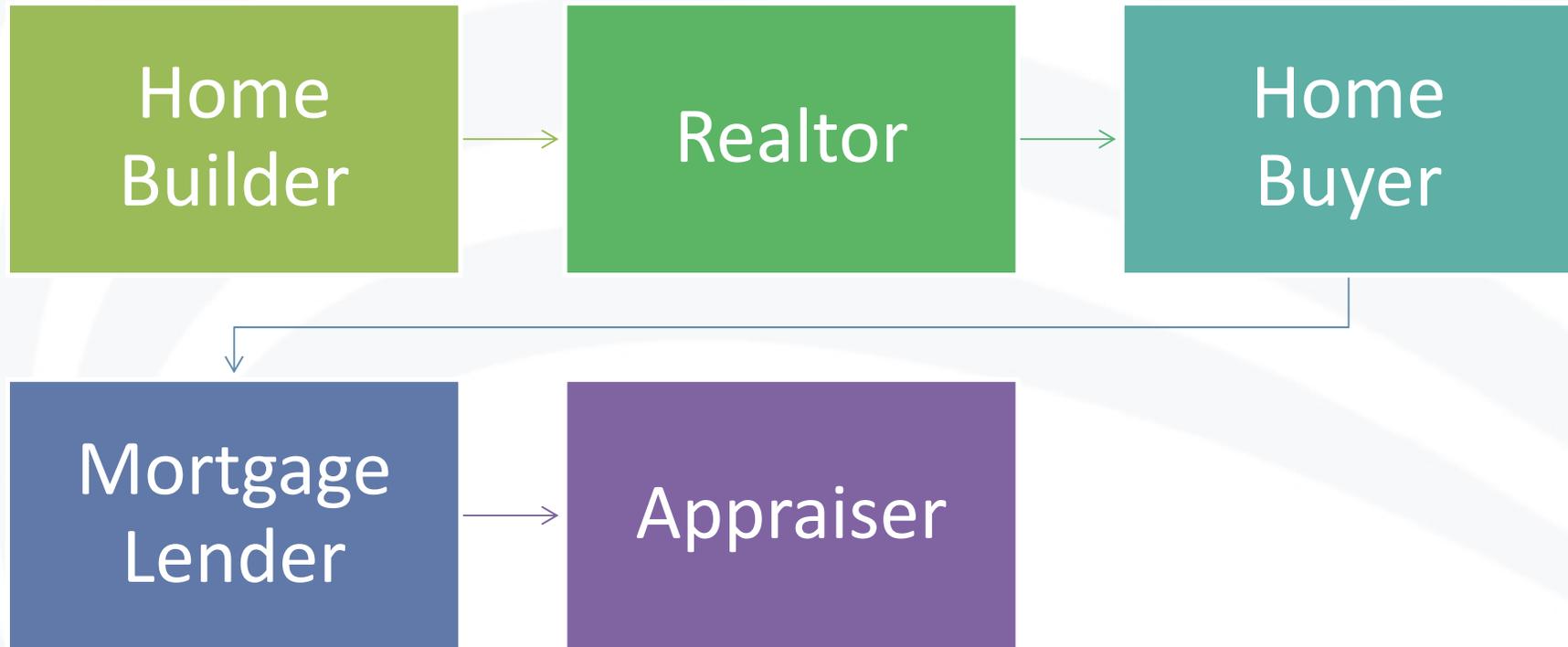
Influencing Change in the Appraisal Industry



VS.



Influencing Change in the Appraisal Industry



Influencing Change in the Appraisal Industry

➔ Identify Key Players:

- Straight to the top!
 - Kentucky Home Builders Association
 - Kentucky Appraisal Board
 - Kentucky Association of Realtors
 - Local/Regional Realtor's Associations administer MLS systems
 - Kentucky Home Mortgage Lending Association
 - State Energy Office
 - Cite Governor's Energy Plan
 - State of Kentucky Banking and Insurance Legislative Committee



Influencing Change in the Appraisal Industry

- ➔ Objective: to recognize not only the value in reduced cost of ownership, but to place value on the equity of cost of improvements
 - Payback on cost of improvements sometimes exceeds the length of ownership
 - National average duration of ownership is approximately 7 years (National Association of Realtors)
- ➔ ENERGY STAR Version 2.5/3 adds value through quality control
 - Thermal Enclosure Checklist
 - Properly installed insulation, air sealing, windows and doors, etc.
 - HVAC QIV Checklists
 - Properly sized and installed HVAC systems and ductwork
 - Water Management Checklist
 - Properly installed flashing, vapor barriers, site drainage, etc.
- ➔ Quality Control
 - Reduces:
 - Risk of loan repayment (lower maintenance costs)
 - Home Warranty claims
 - Homeowner's Insurance claims
 - Increases durability by increasing the life cycle of materials and equipment installed



Influencing Change in the Appraisal Industry

Code-Compliant Home

Size: 2300 sq. ft.

A/C: 13 SEER

Furnace: 80 AFUE

Insulation Grade: III

Infiltration: Not measured

Duct Leakage: Not measured

Windows: Standard

Mech. Ventilation: None

HERS Index: 100

Appraised Value: \$174,000

Energy Star V3 Qualified Home

Size: 2300 sq. ft.

A/C: 14.5 SEER

Furnace: 90 AFUE

Insulation Grade: I

Infiltration: 5 ACH (tight)

Duct Leakage: 6%

Windows: ENERGY STAR

Mech. Ventilation: Installed

HERS Index: 72

Appraised Value*: \$180,000



* Base price + cost of upgrades

Influencing Change in the Appraisal Industry

Code-Compliant Home

30 year fixed rate mortgage*:

\$841/month

Utility Cost:

\$182/month

ENERGY STAR Qualified Home

30 year fixed rate mortgage*:

\$875/month

Utility Cost:

\$147/month



*includes PMI and Property Tax

Influencing Change in the Appraisal Industry

→ Payback vs. Equity

- Code Compliant Home:
 - $\$846/\text{month} + \$182/\text{month} = \$1028/\text{month}$
- ENERGY STAR Home:
 - $\$875/\text{month} + \$147/\text{month} = \$1022/\text{month}$
- Home value:
 - Code Compliant Home:
 - \$174,000
 - ENERGY STAR Home:
 - \$180,000

- If the appraisal recognizes the cost of energy efficient improvements properly, the seller gains \$6,000 equity at the time of sale for a lower monthly cost of ownership



Influencing Change in the Appraisal Industry

→ Barriers to acceptance:

- Appraisers
 - Current training emphasizes the use of “comps” only; training is needed to incorporate energy efficiency valuation
 - Mandating universal change requires legislation at the federal level;
 - However, educating appraisers on a state level can promote accurate and responsible implementation of process improvements that place real value on energy efficient measures
- Realtors
 - Emphasis on value of energy efficient homes affects the ability to sell existing homes
- Mortgage Industry
 - Increased Federal Regulations
 - Low interest rates discourage lending (vs. bonds)
 - Hesitance to accept the authenticity of HERS Rating data
 - Federal legislative barriers



Influencing Change in the Appraisal Industry

➔ Promoting Change

- Mandating change requires legislative change at the federal level;
- However, educating appraisers on a state level can promote accurate and responsible implementation of process improvements that place real value on energy efficient measures

➔ Road to Success

- Advocate the use of more accurate “comps” by incorporating energy efficiency as a qualifier
- Encourage MLS databases to make this information readily available to appraisers
- Promote cross-industry communication between appraisers and Raters



Influencing Change in the Appraisal Industry

➔ Road to Success (continued)

– Maximize participation

- Seek “Approved Training Provider” status
- Provide Continuing Education Units (CEU’s) for Realtors and Appraisers through training
- Learn and understand the CEU requirements for each industry
- Some industries may provide preference for course length and time of year
- Leverage relationships to provide training at annual conferences
- Provide free training where possible
- Serve lunch!



Influencing Change in the Appraisal Industry

→ Gaining Leverage:

- State Energy Plan
 - Political vehicle to advance the cause
- SAVE Act (proposed)
 - Allows mortgage programs to incorporate lower cost of home ownership through reduced utility cost thus reducing the risk of non-payment
 - Increase the demand for energy efficient housing
 - Reduces the duration of payback of the incremental first cost of installed energy efficient measures
 - **Accurately quantifies the value of energy efficient measures in the appraisal process**
 - Stimulates growth in the energy efficient jobs market
 - Bi-partisan support



Influencing Change in the Appraisal Industry

➔ Next Steps

- Continue to provide education to critical program stakeholders
- Maintain communication with local government officials
- Encourage the development of a “green” MLS system

➔ Resources

- ENERGY STAR Website:
 - http://www.energystar.gov/index.cfm?c=bldrs_lenders_raters.nh_benefits_appraisers
- RESNET:
 - <http://www.resnet.us/>
- Appraisal Institute:
 - <http://www.appraisalinstitute.org/>



Thank You/Questions

Contacts

Bill Cooper

Program Manager, LG&E and KU..... bill.cooper@lge-ku.com

Landyn H. Garmon

Program Manager, MaGrann Associates..... landyngarmon@magrann.com

