“Aligning the Stars for Success in a New Market”

EPA Utility Sponsor Meeting
Scottsdale AZ
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MaGrann Associates
Introduction

- Background
- Progress to date
- Elements of success
- Observations (or “how the stars aligned”)

ENERGY STAR® New Homes Program
Service Territory

Louisville Gas & Electric
• 389,000 electric customers
• 314,000 natural gas customers
• Approximately 700 square miles

Kentucky Utilities
• 508,000 electric customers in Kentucky
• 6,600 noncontiguous square miles
Service Territory

- LG&E Electric Service Area
- KU/ODP Electric Service Area
- LG&E/KU Shared Electric Service Area
- LG&E Gas Service Area (black outline)
• 170 Builders
  – Nominal participation in territory prior to program launch
• 24 Raters
  – Only 2 active in territory prior to program launch
• 1150 Homes committed
  – Approx. 22% market share
    (2009 commitments against permits)
• 600 Homes completed
  – Average HERS Index: 78
  – 24% at HERS 75 or lower (25%+ better than better than code)
• Home participation by building type:
• Home participation by unit size:

- Small: ≤ 2500 sq.ft.
- Medium: ≤ 6500 sq.ft.
- Large: ≥ 6501 sq.ft.
• Builder participation by number of units:

- 2-5 units: 38%
- 6-10 units: 7%
- 11-100 units: 6%
- >100 units: 2%
- 1 unit: 47%
Elements of Success

- Infrastructure engagement
- Strategically targeted incentives
- Rater based delivery
- Training & education
- Quality Assurance
- Marketing support
• Builder associations (HBAs)
  – Green Build Kentucky

• Local rating/training provider
  – Energy Efficient Homes Midwest

• State of Kentucky
  – ENERGY STAR Homes tax credit

• Key builders
  – Volume
  – Performance
Strategically Targeted Incentives

For raters...

- Training & certification
  - Actual cost up to $1200

- Equipment purchases (x2)
  - Actual cost up to $500 each

- Payable upon completion of unit thresholds
  - 10/15/20 homes

- Offered first program year only
  - Based on rater response
Strategically Targeted Incentives

For builders...

• Rebates are intended to offset actual energy rating/verification costs paid up to the maximum rebate per unit.

• Qualifying “base” costs include Thermal Bypass (pre-drywall) inspections and final inspections with blower door/duct testing.

• Qualifying “expanded” costs can include additional services such as IR thermography, Green Build KY or LEED inspections, EPA Advanced Lighting Package and/or AirPLUS verification.
### Initial Builder Incentive Structure

- Tiers reflect relative cost and energy savings

<table>
<thead>
<tr>
<th>MAXIMUM REBATE BY BUILDING TYPE/SIZE (SQ.FT.)</th>
<th>≤ 2500</th>
<th>2501-6500</th>
<th>≥ 6501</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Family</td>
<td>$450</td>
<td>$600</td>
<td>$750</td>
</tr>
<tr>
<td>Multi-Single</td>
<td>$325</td>
<td></td>
<td>$450</td>
</tr>
<tr>
<td>Multifamily*</td>
<td></td>
<td></td>
<td>$225</td>
</tr>
</tbody>
</table>
• Rater of Record acts as primary marketing and administration conduit
  – Builder “sales”
  – Participation “agent”
• Processes are simple and responsive
  – One electronic form for site registration and rebate submittal
  – Email submittal of final rating file
  – Proof of payment
• Units are individually tracked
  – Program provides active feedback and support to participants
Builder registration

- Eligibility
  - Must complete Orientation by program or Rater of Record
- Contact /profile information
  - Type of construction
  - HERS rater
  - HVAC contractor
- Agreement
  - Rater QA/QC by Program
  - Legal language
    - Compliance requirements
    - Limitation of liability
  - Must re-register annually
Training & Education

- Initial Orientations provide basics of program technical and process requirements
- Quarterly Rater/Provider meetings address local or administrative challenges
  - Supplements initial certification training
- Bi-monthly Technical Training Series for:
  - Thermal Bypasses in New Home Construction
  - Duct Design & Installation - Best Practices
  - The Relationship Between Design, Energy
  - HVAC Manual J Sizing
  - Incorporating Energy Star Products, Appliances
  - Beyond Energy Star: Driving Performance toward Net Zero Energy

ENERGY STAR®
New Homes Program
• Supplements, not substitutes for RESNET required Provider QA
  – Mimics RESNET QA process/standard
• Rating file review
  – 100% submitted
  – First 3 then ≥5%
• Field review
  – Shadow
  – Full blind
  – Combined ≥5%
• Feedback to raters
  – Letter grade based on consistency with standard
  – Encouraged to allow us to share directly with Provider
  – Monthly summary to E.ON Program Manager
• Action strategies
  – Review of next 3 consecutive file submittals (for file review issues)
  – Prioritization of field reviews (for field review issues)
  – Increased percentage of reviews (file or field)
  – Request for RESNET QA results and/or data from rater’s Provider
  – Request additional action from rater’s Provider
  – Revise rater’s program participation status

• Objectives
  – Provide a feedback loop
  – Identify training needs
  – Credible threat of discovery
  – Confidence in savings
Marketing Support

- Program Outreach
  - HBAs and HBA initiatives (Green Build KY, etc.)
  - Architects (AIAs) & design professionals
  - Trade contractors & suppliers
  - Habitat and affordable sector
- Sales & POP support

ENERGY STAR®
Qualified Home

What makes a home ENERGY STAR?

EON-US.COM/Build

ENERGY STAR®
New Homes Program

Improved insulation.

Right-sized cooling equipment.

MaGrann Associates

EON-Companys

KU

e-on
1. Context (Basis for Program Outreach)
   - HBAs looking to engage with “green”
     - Bought into ENERGY STAR as the foundation
   - Builders looking for differentiation in a down market
     - And aware that energy affordability will be an increasing issue for buyers
   - An active regional HERS Rating/Training Provider
     - Program provided both “motivation” and “destination” for new raters
   - State support for energy efficiency and ENERGY STAR
     - Tax incentive supplements rating-based utility incentive
   - Latent demand for technical education
     - Current and “future” participants
2. Implementation

- Rebate structure recognizes the certification process (rating) as the “new” incremental cost
  - Also supports the value of complementary programs/rater services
  - And including all eligible building types broadens market reach

- Focus on supporting effective Rater delivery
  - Simplified, responsive processes that still gather critical data
  - Admin support targeted to “Raters of Record”
  - Marketing support provides tools for raters and value for builders
  - QA/training feedback loop
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Discussion