Lessons Learned from Evaluation

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Today’s Topics

• Evaluation Methodologies
• Process Review and Improvements
• Attitudinal Insights
• Conclusions
Market Overview

AEP Ohio
32% market share
(by meter installations)
Market Overview

Columbia Gas of Ohio
52% market share
(by meter installations)
Market Overview

Columbia and AEP territories combined have 4,161 completed units as of 8/31/13.
Market Overview

- ENERGY STAR certified: almost 30%
- Average HERS score (2012): 60.2
- Average savings 3.0 MWh, 32.9 MCF/unit
Evaluation Methodologies

- Territory-specific studies
- Process effectiveness
  - Operational review
  - Builder interviews
  - Rater interviews
- Attitudinal survey
  - Participating builders
  - Non-participating builders
  - Consumers (buyers of program homes)
Process Review / Improvements
Process Review

- Enrollment
- Training
- Completion/incentive submittal
- QA
- Incentive payment
- Marketing support
- Data tracking & reporting
Analysis

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Calendar Days</th>
<th>Business Days</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rater process &amp; paperwork</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Completion to Incentive Application Submittal</td>
<td>81.1</td>
<td>57.9</td>
</tr>
<tr>
<td><strong>Admin &amp; Technical QA</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incentive Application Submittal to Application Approval</td>
<td>22.7</td>
<td>16.2</td>
</tr>
<tr>
<td><strong>Batching/Invoicing/Check Cutting/Mailing</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Application Approval to Incentive Payment</td>
<td>59.4</td>
<td>42.4</td>
</tr>
<tr>
<td><strong>Project Completion to Incentive Payment</strong></td>
<td>163.0</td>
<td>116.4</td>
</tr>
<tr>
<td><strong>Application Submittal to Incentive Payment</strong></td>
<td>82.0</td>
<td>58.6</td>
</tr>
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</table>

- 5 months is a long time!
- QA is an essential interruption but not the real bottleneck
- 50% in the Rater’s hands
- 36% in incentive processing
Process Improvements

• Program time from submittal: reduced by 60%
• Checks drawn on a pre-funded incentive pool
  – Est. 40 days saved
• Builder/rater training & communication
  – Common application errors
  – Date for correction to be included in next batch
  – Est. 10 days saved
Process Improvements

- Rater time prior to submittal: Impact TBD
- Data simplification
  - Verification of most additional program requirements directly from REM rather than separate data entry
- Feedback on unit “aging”
  - Time from completion to submittal (determined post-processing)
  - Enrollments outstanding
Name Confusion

• The AEP OHIO / Columbia Gas of Ohio ENERGY STAR® New Homes Program

• Logo
Name Confusion

- Two brand lines within the program
  - ENERGY STAR®
  - Energy Path
Attitudinal Insights
Non-Participant Builder Feedback

• Program awareness is high
• All claim:
  – to be building above code
Non-Participant Builder Feedback

• Reasons cited for not participating
  – Requirements too restrictive
  – Incremental material/equipment and labor costs too high; incentives amounts too low
  – Verification process too disruptive
  – Belief that energy efficient homes are less price competitive (fear of losing sale) in general
Non-Participant Builder Feedback

• Reasons cited for not participating
  – Specifically, production/national builders are building only to “bare minimum” (code) so would not be able to compete with production builders on price
  – Consumers don’t demand or value the benefits, especially if only buying for a few years
Builder/Rater Participant Feedback

- Builders said they enrolled in the program for the rebate dollars, but rate external recognition and marketing as the #1 benefit of the program.
- Builder’s own knowledge and ability of sales to explain to buyers rated lowest!
Builder/Rater Participant Feedback

• Most builders believe buyers are “showing more interest in buying certified homes”
• But builders of ENERGY STAR tier homes cited the greatest need for marketing support
• Tying incentives to HERS scores makes sense, but help needed to explain to buyers the potential savings based on improved HERS Scores
“Well, a lot of times it is just the stereotype of the big bad builder, and verifying that it is from a third party and a third party that everyone recognizes, AEP and Columbia Gas, makes them [buyers] a little more comfortable with it. That we are being held to a standard that we are not making up on our own [can give buyers confidence].”
Ten years ago, yes they might have cared about energy efficiency. If they like the floor plan and the square footage price was right then they really didn’t care if it was ENERGY STAR. Now with all the information that is out there, absolutely. These homeowners are definitely wanting it and if you are not doing it you are missing out on a huge chunk of opportunity, because most customers are definitely wanting that rating because they see the benefits of it.”
“It is not a priority to a number of them [our sales staff] because a lot of our homes sell because of the aesthetics of the home...Right now it mostly only comes up if the homeowner asks the question.”
Additional Insights

Homebuyer Awareness

High familiarity with the ENERGY STAR brand

- 64% Somewhat Familiar
- 22% Not Very Familiar
- 12% Very Familiar
- 2% Not at all Familiar
Homebuyer Awareness

60% had heard of our ENERGY STAR New Homes Program

40% were not aware that they had bought a program home
Program Homebuyer Feedback

Feature Importance

Certified by ESNH Program 30%
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<td>44%</td>
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## Program Homebuyer Feedback

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<tr>
<td>Health and Safety</td>
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<td>Amenities</td>
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<td>Affordable Utility Bills</td>
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<td>Quality Construction</td>
<td>93%</td>
</tr>
<tr>
<td>The Home’s Comfort</td>
<td>88%</td>
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<td>Cost of Home</td>
<td>88%</td>
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“[The home being certified] wasn’t really a factor in deciding to buy the house.”

Buyers don’t seem to be correlating benefits with energy efficiency or the program...

“It was a part of the overall package, but it wasn’t the top [priority].”

“I just never thought of it before.”
...but when prompted...
It’s quiet, maintains the temperature well, and is well designed for everyday use.

The temperature and comfort have been well regulated and cozy.

It’s a very nice home and it’s well built.

Even though our house is three times as large as our last home, our bill has not gone up.

The bills have actually been surprisingly lower with the size of the home that I have.

It (energy bill) is a lot lower than it was in my old house.
Additional Insights

Ambivalence

Knowledgeable of ways to save energy:
- 95% Knowledgeable or Neutral

Motivation to save energy:
- 56% Not Motivated or Neutral
- 44% Motivated
Additional Insights

Contradiction

Feel responsible for conserving energy even if in a small way

95% Agree

It does not take long to recover the cost of energy-efficient appliances

51% Agree
Neutral
Disagree

Feel guilty when they waste energy

Agree
Neutral
22% don’t feel guilty
Disagree
Cost over Altruism

**Reason to change actions to save energy**

- Lowering monthly bills: 71%
- To not waste energy: 12%
- Protecting the environment: 7%
- Becoming more energy independent: 5%
- For the benefit of future generations: 2%
- Don’t know: 2%
Conclusions
Strong Fundamentals

• Program fundamentals are strong
  – Areas identified for improvement linked to process tweaks rather than technical standards, QA or incentives
  – Program builders are demonstrating an ability to drive for higher performance and institutionalize upgrades
Entrenched Perceptions

• Non-participating builders are entrenched in their perceptions
  – Cost is the only value they see a need to compete on
Conflicted Customers

- Customers are conflicted and inconsistent when it comes to program benefits and motivations
  - But they value the outcomes in terms of the performance and operating cost of their home
 Builders are Not Messengers

• Relying on builders to communicate how these outcomes are linked to the program may have reached the limit of its potential
  – Even with enhanced sales training (including role playing), builder sales staff appear to be either unmotivated, unwilling or unable to engage effectively with customers on these topics

• We need more marketing to help builders take the program to the next plateau
  – Even with enhanced sales training,
Consideration

• Is it time to shift to a demand side strategy rather than a supply side strategy?
Discussion