Green Jobs Green New York Residential (1- to 4-Family) Process Evaluation and MCA Findings

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Project Lead: Rohit Vaidya
Agenda

• Background, Objectives & Methodology

• Summary Findings
  – Market Characterization and Assessment
  – Process Evaluation

• Recommendations
  – Market Characterization and Assessment
  – Process Evaluation
GJGNY Residential Process and Market Characterization and Assessment Evaluation Objectives

• Market Characterization and Assessment (MCA)
  – Document the experience of early changes to the program
  – Provide input on the effectiveness of the program features during summer/fall 2011
  – Assess various aspects of the program activities, barriers to achieving program goals, perceptions of the program and baseline conditions

• Process
  – Review program processes for each program component
  – Determine value of services to program participants

• Recommendations
Evaluation Methodology

Evaluation research activities:

• In-depth interviews:
  – Program staff (n = 6) and Implementation contractors (n=7)

• Telephone surveys:
  – Homeowners (Upstate-A, Upstate-B, Downstate)
    • Participants (n=536):
      – Installed measures through HPwES (n=147)
      – Completed Audit (n=257)
      – Approved for audit (n=132)
    • Non-participants (n=212): Have not participated, intend to install measures
      – Low-moderate income customer oversample (n=106)
  – HPwES contractors (n=59)

• Analysis of secondary sources
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Program Awareness: Non-Participants & HPwES Contractors

Among those aware of HPwES, there was moderate awareness of GJGNY
• 2% of non-participants reported unaided awareness
• 36% reported awareness after being prompted with a description of HPwES

Among non-participants aware of HPwES
• 69% aware of GJGNY energy audits
• 57% aware of GJGNY low-interest loans

24% of contractors mentioned lack of customer awareness or knowledge of the program as the main barrier to participating in the GJGNY audit program

Among non-participants aware of HPwES (n=76)
- 69% aware of GJGNY audits
- 57% aware of GJGNY low-interest loans

Primary barrier to participation in audits: Lack of customer awareness
- 24%

Contractors (n=59)
Interest in HPwES and GJGNY: Non-Participants & Low-Moderate Income

- Interest in overall HPwES program: 17% (n=212)
- Interest in GJGNY audit: 19% (n=212)
- Interest in GJGNY low-interest financing: 26% (n=212)

- Interest in overall HPwES program: 20% (n=106)
- Interest in GJGNY audit: 32% (n=106)
- Interest in GJGNY low-interest financing: 21% (n=106)
Reason for Lack of Interest in HPwES and GJGNY: Non-Participants & Low-Moderate Income

<table>
<thead>
<tr>
<th>Reason for Lack of Interest</th>
<th>GJGNY audit</th>
<th>GJGNY financing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do not need it or not interested</td>
<td>20%</td>
<td>21%</td>
</tr>
<tr>
<td>Home already energy efficient</td>
<td>19%</td>
<td></td>
</tr>
<tr>
<td>Too expensive/ don't have the money</td>
<td></td>
<td>31%</td>
</tr>
</tbody>
</table>

Non-participants (n=141)
Low-moderate income respondents (n=55)

Non-participants (n=139)
Low-moderate income respondents (n=66)
Audits Important to Measure Installation

- Receiving the audit was important to the decision to install measures for nearly four-fifths of “audit-completed”* participants.
- About two-fifths of “audit-completed” participants installed measures outside HPwES.
- About three-fourths of HPwES “work-completed” participants reported the audit was important to the decision to install measures.

* Audit-completed participants who installed measures outside program.
As of June 15, 2011, one-third of HPwES “work-completed” participants used GJGNY low-interest financing.

39% of the “work-completed” respondents reported their decision on how to finance the project was influenced or extremely influenced by the advice of the HPwES contractor.
Homeowner Decision Making: Importance of Incentives & Financing

Among “work-completed” participants:

- Four-fifths of those who received an HPwES incentive or financing said that receiving each of them was important to their decision to install measures.

- About three-fourths of those who received an HPwES incentive and GJGNY financing said that receiving both of them was important to their decision to install measures.

![Bar chart showing percent important/extremely important](chart.png)

- Receiving Program Incentive: 80%
- Receiving ANY Financing: 79%
- Receiving Program Financing & Incentive: 76%

**Notes:**
- Receiving HPwES work-completed: (n=21)
- Receiving HPwES work-completed: (n=147)
- Receiving HPwES work-completed: (n=47)
Contractor Reported Activity

- Surveyed contractors reported that, on average, HPwES accounted for about one-third of their revenues
  - 36% and 32% in 2010 and 2011, respectively

**Percent of total revenues from HPwES**

- 2010: 36%
- 2011: 32%

Contractors (n= 52)  
Contractors (n= 54)

*Statistically unchanged between 2010 and 2011*
Increased Employment

• 46% of HPwES contractors reported an increase in the number of their employees following the introduction of GJGNY components into HPwES (between Nov. 2010 and Oct. 2011)

• Those HPwES contractors who reported an increase in employment attributed 24% of the increase to the introduction of GJGNY

![Pie chart showing the change in the number of contractor employees from 2010 to 2011: 46% more employees, 30% no change, 23% fewer employees. Contractors (n= 56).]
Finding Skilled Job Applicants

The HPwES contractor survey asked how difficult is it to find enough adequately skilled job applicants in their area.

- About three-fifths (59%) said that it was difficult or extremely difficult.
Value of Training and Certification

- 78% of HPwES contractors said that field training would be valuable or extremely valuable for their employees.
- HPwES contractors gave the highest ratings to residential building construction experience.
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The large majority (82%) of "audit-completed" and "work-completed" respondents were satisfied or very satisfied with the HPwES program.

A large majority of participants also were satisfied or very satisfied with specific HPwES program elements.

- Application process and paperwork to participate: 86%
- Energy audit of home: 90%
- Contractor who performed the audit: 87%
- Energy-efficiency measures installed: 85%
- Contractor who installed the measures: 93%
Satisfaction: HPwES Contractor

Percent satisfied/very satisfied

<table>
<thead>
<tr>
<th>Category</th>
<th>Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPwES Program</td>
<td>36%</td>
</tr>
<tr>
<td>NYSERDA HPwES Marketing</td>
<td>23%</td>
</tr>
<tr>
<td>Audit Processes and Procedures</td>
<td>51%</td>
</tr>
<tr>
<td>Communications with program and implementation staff</td>
<td>37%</td>
</tr>
<tr>
<td>Financing approval processes and procedures</td>
<td>37%</td>
</tr>
<tr>
<td>Program application processes and procedures</td>
<td>19%</td>
</tr>
</tbody>
</table>

Contractors (n= 59)
Saving on energy bills is a primary concern, and the most important reason participants had an audit

- 55% of all non-participants surveyed are concerned about electricity or natural gas bills
  - 57% of Downstate low-moderate income respondents are extremely concerned with utility bills

- 47% of participants wanted to save on energy costs or bills
Barriers to Participation: Non-Participants, Low-Moderate Income

The low-moderate income respondents not interested in HPwES indicated a perceived lack of need for the program:

- 26% did not have the money to pay for it
- 15% already installed most measures
- 13% did not need and/or were not interested in program
- 13% said home is already energy efficient

Customer perceptions as barriers to participation:

- 26% Cannot pay for it
- 15% Already installed most measures
- 13% Did not need/not interested in program
- 13% Home already energy efficient

Low-moderate income respondents (n= 106)
Barriers to Participation: Audit Approved, Non-Participant

- 32% of “audit-approved” respondents cited time and scheduling issues as barriers to participation
  - 18% did not have time in their schedules
  - 14% indicated the hassle of scheduling

- 23% of non-participants who had heard of HPwES felt they did not have the time to participate in the program
Barrier to Measure Installation: Audit completed, Work completed, Contractors

- “Audit-completed” participants
  - 42% report the measure(s) are too expensive or cost too much

- HPwES “work-completed” participants
  - 39% report the measures were too expensive or cost too much

- 70% of HPwES contractors reported that lack of budget was the primary barrier to customers installing measures

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| Reason                                | Audit-completed respondents (n=94) | Work-completed respondents (n=138) | Contractors (n= 59)
|---------------------------------------|------------------------------------|------------------------------------|------------------
| Measures too expensive               | 42%                                | 39%                                | 70%              
| Not enough money/lack of a budget    |                                    |                                    |                  
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MCA Recommendations

• Market Awareness and Program Messaging
  – Ensure program and HPwES contractor marketing messages emphasize the benefits of participation
    • financial savings on energy bills, low-interest financing and energy efficiency education through the audit process

• Contractor Training
  – Continue to leverage existing training resources and expand the network of training partners to focus on specific field, sector, and advanced technical training
  – Further develop work and job readiness programs through internships and real-world experience to assist contractors in achieving BPI and other building science certifications
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Process Recommendations

- Consider offering additional seminars/webinars to educate the contractors about GJGNY low-interest loans
- Develop marketing and educational materials that promote the benefits of early replacement of energy consuming equipment
- Encourage HPwES contractors to develop various work scope options including a variety of measure mixes and upgrades
- Develop marketing messages that promote the ease and benefits of participation, flexible scheduling times, etc
Thank You

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