Clean Heating & Cooling Communities Programs: Partnering with Local Contractors

NY-GEO 2019 Conference
Wednesday April 10, 2019
Agenda

- Clean Heating & Cooling Communities Summary
- HeatSmart Mass – Jeremy Koo
- HeatSmart Tompkins – Jonathan Comstock
- HeatSmart Ulster-Sullivan – Sam Wright
- HeatSmart Westchester – Lauren Brois
- HeatSmart Capital District – Todd Fabozzi
2018 CH&C Communities Summary

**caveat: inconsistent data collection/reporting from installers for some ongoing campaigns**

As of start of April…

- **756 leads (7 campaigns reporting)**
  - 150 site visits (3 campaigns reporting)
  - 46 quotes (3 campaigns reporting)
- **39 contracts (5 campaigns reporting)**
NYSERDA Clean Heating & Cooling Communities

Experiences and Lessons Learned from HeatSmart Mass

2019 NY-GEO Conference
Wednesday, April 10, 2019
Overview

• Latest in MassCEC community-based clean energy programs
  - Modeled directly after Solarize Mass
  - Drew lessons learned from other CH&C community-based outreach programs

• Outreach, education, and group purchasing
  - Event-based outreach + traditional & targeted marketing
  - Selected installers offering special pricing
  - Limited-time campaign

• Some similarities, but many differences from NYS Program

Since 2011…
75 communities
3,431 PV contracts
23 MW of capacity
Overview

4 pilot campaigns
7 towns
Combined population of ~58,000

(still ongoing)
## Pilot Program Results

(For 3 of 4 communities)

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>CCL</th>
<th>BH</th>
<th>GB</th>
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</thead>
<tbody>
<tr>
<td>Unique Leads</td>
<td>623</td>
<td>337</td>
<td>213</td>
<td>73</td>
</tr>
<tr>
<td>Site Visits*</td>
<td>435</td>
<td>225</td>
<td>170</td>
<td>40</td>
</tr>
<tr>
<td>Contracts Signed</td>
<td>110</td>
<td>63</td>
<td>46</td>
<td>1</td>
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<tr>
<td><strong>-Air Source Heat Pump</strong></td>
<td>75</td>
<td>40</td>
<td>34</td>
<td>1</td>
</tr>
<tr>
<td><strong>-Ground Source Heat Pump</strong></td>
<td>34</td>
<td>22</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td><strong>-Modern Wood Heating</strong></td>
<td>1</td>
<td>1</td>
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</tbody>
</table>

- At least 19 program participants signed ASHP contracts with other installers, many got additional quotes
  - (but not for other technologies)
- Close rate of 25.4% across all installers in program
  - 23% for ASHP, 31% for GSHP
- 2-6% of all households in each town participated
Pilot Program Results | GSHP Results
(For 3 of 4 communities)

- Almost all retrofit projects, only a few NC/major renovation projects
- Goal for campaigns was <15 installs – more than doubled!
  - Strong incentive landscape (AECs kicked in at start of program)
- High project cost: avg. of $66,381
  - Very affluent communities ($134,000-$170,000+ median HH income)
- Good collaboration between ASHP and GSHP installers in both campaigns
  - Lots of lead sharing
  - Complementary targeted marketing efforts
Pilot Program Results
(For 3 of 4 communities)

What were your interests in CH&C?

Why were you interested in an ASHP?
(Weighted Scores out of 7)

- Cooling: 5.7
- Energy savings/efficiency: 4.8
- Heating: 4.5
- Greenhouse gas emission reductions: 3.7
- Dehumidification/indoor air quality: 3.5
- Zoning capabilities: 3.4
- Discounted price: 3.2

Why were you interested in a GSHP?
(Weighted scores out of 7)

- Energy savings/efficiency: 5.5
- Heating: 5.1
- Cooling: 4.3
- Greenhouse gas emission reductions: 4.1
- Discounted price: 4.0
- Dehumidification/indoor air quality: 2.8
- Zoning capabilities: 2.7
On a scale of 1-5, how knowledgeable were you about heat pumps before and after participating in HeatSmart?

<table>
<thead>
<tr>
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<th>Before</th>
<th>After</th>
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</thead>
<tbody>
<tr>
<td>ASHP</td>
<td>2.9</td>
<td>4.0</td>
</tr>
<tr>
<td>GSHP</td>
<td>2.5</td>
<td>3.8</td>
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</table>
Lessons Learned & Challenges

Cost reductions not achieved

<table>
<thead>
<tr>
<th>Technology</th>
<th>HeatSmart project avg ($/ton)</th>
<th>Regional FY17 avg. ($/ton)</th>
<th>% variation from regional avg.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASHP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-Single-zone</td>
<td>$3,607</td>
<td>$3,716</td>
<td>-3%</td>
</tr>
<tr>
<td>-Multi-zone</td>
<td>$4,492</td>
<td>$4,441</td>
<td>+1%</td>
</tr>
<tr>
<td>GSHP</td>
<td>$14,347</td>
<td>$14,011</td>
<td>+3%</td>
</tr>
</tbody>
</table>

• More than half of projects included substantial optional cost adders
  - E.g. ductwork zoning, desuperheater, upgraded indoor units for ASHP

• Base + adders pricing approach
  - ASHP: 14% over base
  - GSHP: 26% over base
Lessons Learned & Challenges

Different Customer Types

- HeatSmart Customer
- Typical CH&C customer

Low level of knowledge/more education needed, brought in by high-level marketing,

Some level of knowledge/research

More knowledgeable, higher-quality lead

Significant research and understanding of technology, likely to proceed

Contract signed
Lessons Learned & Challenges

Other

• Installer selection challenges
  - Lack of bidders to markets outside of Greater Boston
  - Great installer on paper ≠ fit for local community

• Multiple quotes?

• Education from installer indicated as most important way of learning about program/technology

• Shorter term (6-month) campaigns can be challenging
  - Differing seasonality between installers
  - HVAC buying cycle often longer: many installers reporting continuing to close more contracts after program deadline (8+ more GSHP!)
  - Need to balance against volunteer capacity/burnout
A look ahead

2019 HeatSmart Mass Program

• First campaigns within 2019-2021 Three-Year Plan
• 2 communities served by MLPs (do not pay MA energy conservation charge)
• 3 of 4 communities offering GSHP
• Stay tuned for launch in late April/early May!
Thank you!

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A Better Way to Heat and Cool Our Homes!

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HeatSmart
is a program of
SOLAR
TOMPKINS
The 2018 CH&C Communities

- Sustainable Homes Rochester
- HeatSmart CNY
- HeatSmart Otsego
- HeatSmart Ulster-Sullivan
- HeatSmart Westchester
- HeatSmart Orange
- HeatSmart Southern Tier East
- HeatSmart Tompkins
Why Do Heat Pumps Matter?

Stewardship of Earth Systems and the Diversity of Life

Preserving the Legacy of our children and future generations

The Comfort, Health & Cost Effectiveness of our homes
Participation in HeatSmart Tompkins across 3 years

**Year 1 participants**  
Wanted a Solarize-type experience.

1) Vetted installers  
2) Only wanted one bid

**Year 2 participants**  
Were restricted to 1 bid at enrollment. Only a few asked for a 2nd

** Feedback survey indicated many desired more assessments.**

**Year 3 participants**  
66% signed-up for both installers.

Of the dozen I talked to all also had at least 1 outside bid and most had 2.

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**A) Shopping Approaches changed!**

**B) Was there evidence of market stimulation not represented in the enrollment numbers?**

This year’s participating installers had, between them, an additional 42 jobs from their own leads

Both installers said most of these people had been motivated in part by HeatSmart activities

Anecdotal evidence says many other local installers and builders similarly benefited.

**Indirect market stimulation is several-fold greater than direct enrollment numbers.**
For its fourth campaign starting in May 2019, HeatSmart Tompkins is focusing on both maximizing direct enrollments and also overall market stimulation.

1) Improving all our standard outreach approaches that bring in enrollees
   
   a. Yard signs, list serves, local newsletters, radio interviews, Facebook, website, public meetings, etc.
   
   b. Did not get the expected bang for the buck from direct mail efforts and may reduce them
   
   c. A new element being explored is advertising on the sides of TCAT busses.

2) We are finding House Parties (different from home tours) to be very fruitful!

3) We are developing creative ways to engage the community such as the HeatSmart Tompkins Award for Outstanding Earth Stewardship.
The Partnership between Clean Heating & Cooling Community Campaigns and Local Contractors
The Value of Contractor-Partnership

• HeatSmart Ulster-Sullivan 2018 Campaign
• The value of contractor input
  • Valuable information/technical resource
  • Cooperative marketing opportunities
  • Coordinating outreach and follow-up with leads
  • Strategic targeting and marketing strategy
  • “Vetting” leads
• The story of the “free energy audit”
Challenges & Strategies

Administrative Challenges
- Creating an RFP
- Tracking leads

Keeping customers happy
- Explaining the process, what to expect, and providing information

Keeping contractors happy
- Value their time
- Value their input
- Be up-front and honest about your expectations
Our role as a partner

Selecting contractors
- Creating an RFP & Calling contractors
- Questions for the interview

Open communication with contractor-partners
- Asking for advice
- Weekly “check ins”
- Meeting face-to-face (interviews and events)

How to help
- Following-up with leads
- Providing platform for the contractors
Thank you!

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www.renewableny.org
Westchester & Orange County
Clean Heating & Cooling
Meet the Team

Energize NY & Sustainable Westchester
Abundant Efficiency, Earthkind Energy,
Association for Energy Affordability
Light Bulb Question

How many tons of Greenhouse Gas emissions does the average US home produce yearly?
7.5 tons of Co2

Equivalent to a car driving back and forth across the USA 3 times!
HeatSmart Statewide Initiative
HeatSmart Westchester & Orange

Communities selected through a competitive RFI process

- Orange County – Warwick
- Westchester County – Bedford, Pound Ridge & Lewisboro.

- Round II RFI is now live!
Technologies

Air Source Heat Pumps paired with Energy Efficiency

Ground Source Heat Pumps/Geothermal
Selected Installers

Contractors selected through a competitive RFP process

Warwick Selected Installers

Westchester Selected Installers
Community Partners

HeatSmart
BEDFORD • LEWISBORO • POUND RIDGE

Bedford 2020

Lewisboro Sustainability Committee

Energy Action Committee Pound Ridge NY
Community Partners
Roles & Framework

• HeatSmart Team: Manage contractors, coordinate events, homeowners support, support volunteers

• Community Team: Bring enthusiasm, local participation, leverage knowledge about communications channels in community, coordinate the local aspects of event planning, (secure venue, participation of local officials) generate leads

• Role of the Installers: Provide information to everyone who’s interested, respond to homeowner questions in detail, conduct assessments and link rebates
Benefits to Selected Community

• Education on new choices in updated technologies
• Guidance to maximize new rebates
• Centralized, non-profit help to learn and make informed improvements
• Cleaner, greener, more sustainable community
Before: Brrrrr!
Step 1: Assess
Step 2: Finance
Step 3: Upgrade
After: Energized!
Workforce Development

• AEA will be offering work force development in Westchester and Orange Counties:
  • HVAC Quality Install training
  • Sales and Marketing for Clean Heating and Cooling Technologies

• Upgrade the skills of existing workers

• Assist existing workers to obtain or retain appropriate certifications to help to continue to raise the bar of work quality achieved in HVAC and energy efficiency upgrades.

• Develop a pool of qualified entry-level candidates for the installation and maintenance of clean heating and cooling technologies.
THANK YOU!

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www.EnergizeNY.org
www.HeatSmartNY.com
Capital District
Clean Heating and Cooling Campaign

Campaign Director
Todd Fabozzi
Households Using Fuel Oil

One dot = 5 Households

Source: US Census ACS 2017
% Households Not Using Utility Gas

- 6.3% - 22.4%
- 22.5% - 35.6%
- 35.7% - 52.6%
- 52.7% - 80.7%
- 80.8% - 100%

Source: US Census ACS 2017