



Building America Perspective & Overlay to the Energy Upgrade California Approach

Driving demand through targeted neighborhood programs



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Austin, TX

By Mark Berman, Alliance for Residential Building Innovation



Relevant BAP Gaps & Barriers

1. Difficulty in recruiting homeowners to participate in home energy upgrade programs. (Recruitment)
2. Need to develop sustainable retrofit business models (Biz Models)
 - Review business models in Better Buildings Program & other programs
3. Data mining – need to analyze utility bills to get a sense of whole-house efficiency and savings (Aggregate Results)



Overview: Stockton CA

- Locally branded: “The Stockton Energy Challenge”
- Targeting neighborhoods of similar homes to create economies of scale
- Single-contractor model: fulfilling both assessment and retrofit functions
- Customized marketing approach and tactics to reach target neighborhood/homeowners audience
- Co-funded by California Energy Commission





Overview: Sonoma

- Single-contractor model
- Targeting three neighborhoods in Rohnert Park and Santa Rosa
- In coordination with Energy Upgrade California program
 - Part of the Better Buildings Program





Overview: L.A. County Contractor Pilot

- Working with two contractors
- Neighborhood: West Palmdale
- In coordination with Energy Upgrade California.
 - Part of the Better Buildings Program





Barriers to Success

- Lack of understanding
 - Retrofit?
 - Home Energy Upgrade?
 - Seal my envelope??
- Huge need for consumer education
 - Appropriate role for government
- First Cost
- Need for long term financing
- Need to match monthly savings with monthly costs





Results to Date

Pilot Statistics as of 1/31/2012

Program	Total Leads	HEAs	HEUs*	% Conversion	# of Households	Projected Savings	Penetration Rate
EUC Total	N/A	N/A	3160	N/A	9,480,300	31%	0.03%
EUC (PG&E Territory)	N/A	N/A	2370	N/A	5,003,000	32%	0.05%
Sonoma	31	7	0	0%	853	N/A	0.00%
Palmdale1	58	14	3	5%	1,134	20%	0.26%
Energy Challenge - S	287	147	64	22%	51,800	31%	0.12%

*completed and in process





Comparative Results

Pilot

Penetration Rate

Sales Oriented Contractors

Energy Challenge	.12
Palmdale-A	.18

Non-Sales Oriented Contractors

Sonoma	0
Palmdale-B	.09





Typical Home Energy Upgrade

- Caulk & seal envelope
- Weatherization
- Attic insulation
- Replace/tighten ducts
- Optional as needed
 - Windows
 - HVAC
 - Water heater





COSTS & SAVINGS

- Typical Cost: \$12,500 - \$3,000 rebate = \$9,500 net
- Typical Savings: 25% x \$2,400/year = \$50/month
- Ammortized Costs: \$9,500

<u>Int. Rate</u>	<u>Term</u>	<u>Monthly Cost</u>
18%	5 yrs.	\$240
10%	10 yrs.	\$125
6%	15 yrs.	\$ 80
3%	15 yrs.	\$ 66
0%	15 yrs.	<u>\$ 53</u>



Strategies That Appear to Work

- Professional sales reps trained in Building Science
 - NOT Building Scientists trained in sales
- Costs that match savings
- Performance Guarantees
 - Heating & Cooling only
 - Remove plug load risks
 - Control takeback
 - T-stat that monitors set points



What's Left to Achieve?

- Accurate savings predictions
 - EnergyPro projecting savings > 100%!
- Developing pilot Performance Guarantee Program
 - BOpt
 - Calibrate with pre-retrofit energy bills
 - Rerun with Test-Out data
 - Set-point limits
- Monitored Results



My Energy Portal

MyEnergy Program Administrator Portal					Page Safety Tools				
MyEnergy Program Administration					My Programs myenergy.com help@myenergy.com				
November 7 2011 to February 7 2012					Change Dates				
Homes Counted	Amount Consumed	Amount Billed	Consumption Savings	Bill Savings					
Electricity									
12	3,793.2 kWh	\$863.59	971.631 kWh	\$23.68					
Natural Gas									
11	66,891.6 cf	\$710.22	3998.321 cf	\$107.80					



More Gaps & Barriers

- How can high participation rates be achieved in targeted neighborhoods?
 - Can retrofits go viral?
- Where can economies of scale & efficiencies be developed?
 - Assessments
 - Modeling
 - Package Design
 - Bulk Purchasing
 - Installation
 - Performance Guarantees



Questions?