

Process Evaluation Research: Overview & Insights for the Consumers Energy E0 Program Portfolio

Presented to the Michigan E0 Collaborative

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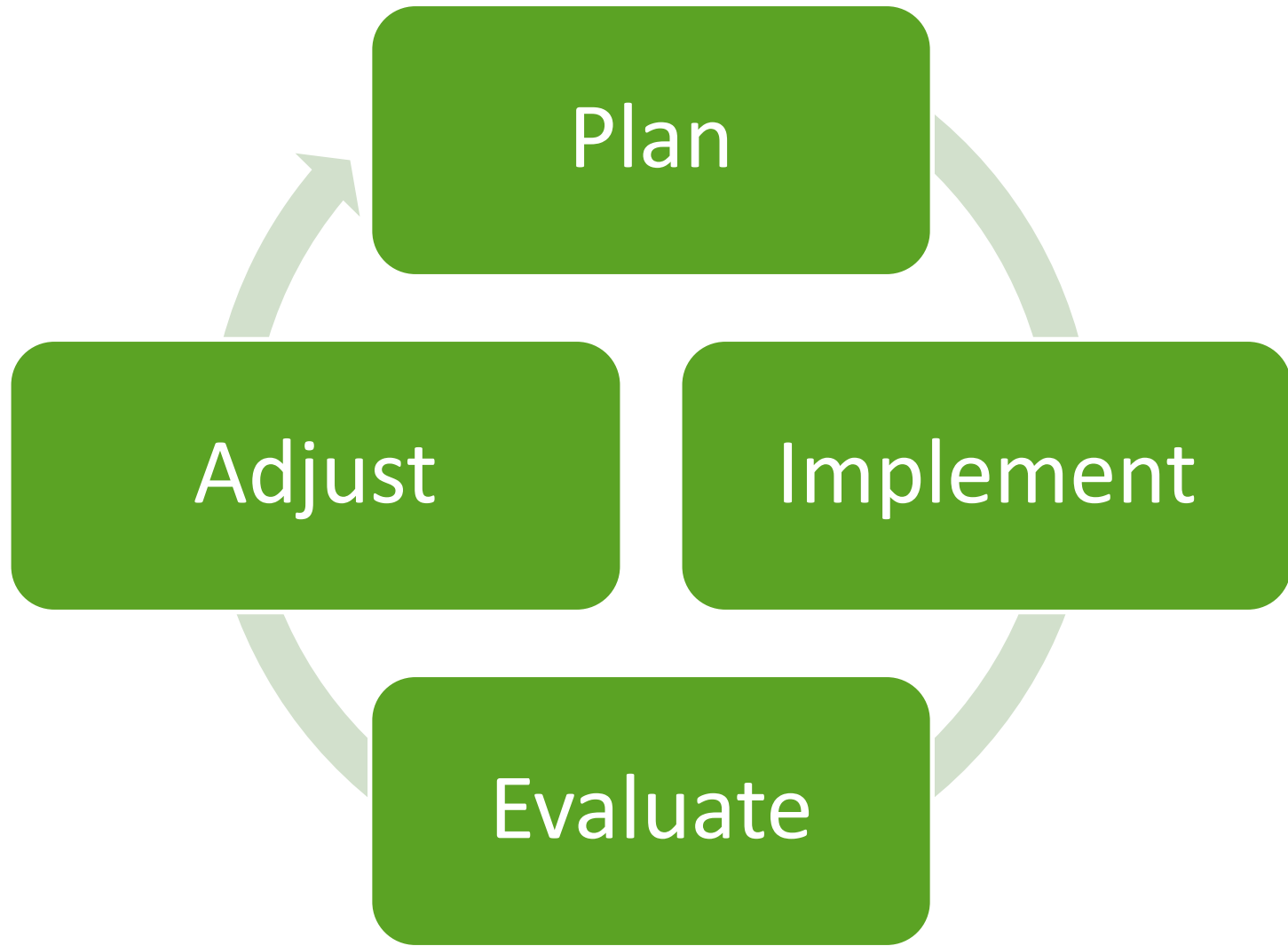
Consumers Energy

Count on Us

- 1. Consumer Energy evaluation team's approach to process evaluation**
- 2. Sequence and scope of major commercial and industrial (C&I) process evaluation studies conducted**
- 3. Key insights from recent C&I process evaluation studies**
- 4. Sequence and scope of major residential process evaluation studies conducted**
- 5. Key insights from recent residential process evaluation studies**

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- *From EPRI's DSM Process Evaluation: a Guidebook to Current Practice (1992):*
 - The systematic assessment of a utility DSM program for the purposes of improving its design; its delivery; and the usefulness and quality of the services delivered to the customer.”



Process evaluation examines

Program design
and processes

Program
administrative
activities

Program delivery
and
implementation
activities

Customer response

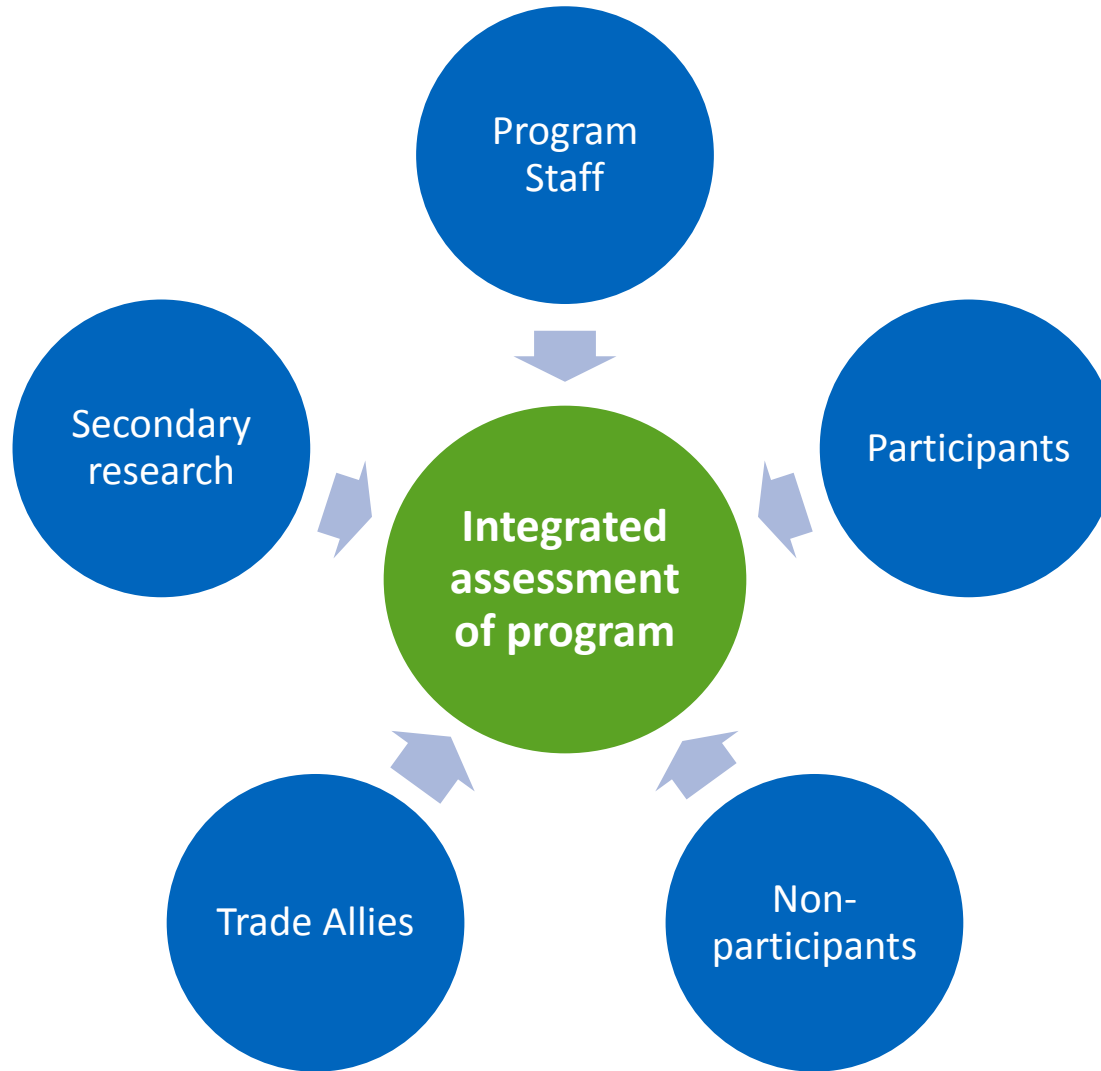
Internal and
external program
barriers

Market response

Program impacts

Infrastructure
development

Customer
awareness and
satisfaction





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Sequence & scope vary to maximize coverage

Program Process Evaluations

| | | | | |
|---|---|--|---|--|
| <p>Business Solutions Small Business Direct Install</p> | <p>Business Solutions Small Business Direct Install</p> | <p>Business Solutions Small Business Direct Install Programmable Thermostats</p> | <p>Hospitality Initiative Cross-cutting customer & trade ally study Web usability testing</p> | <p>Business Solutions Small Business Direct Install Programmable Thermostats Non-profit Initiative</p> |
| PY2009 | | PY2011 | | PY2013 |
| PY2010 | | <p>Building Operator Certification Compressed Air New Construction</p> | <p>PY2012 New Construction Agriculture Multiple Measures</p> | <p>Building Performance with Energy Star K-12 Schools Industrial Continuous Improvement Energy Check</p> |

Pilot Process Evaluations

Scope of C&I process evaluations

| Process Evaluation Data Collection | 2012 | 2013 |
|------------------------------------|---|--|
| Staff interviews | 23 staff interviews | >15 staff interviews |
| Ride-alongs | 6 program staff ride-alongs | 3 program staff ride-alongs |
| Logic models and process mapping | 1 process mapping session | 4 logic model sessions |
| Trade Ally/technician interviews | 83 trade ally interviews 10 technician interviews 16 auditors interviews 30 design professional interviews | 89 trade ally surveys 11 trade ally web usability tests |
| Participant surveys | 512 participant surveys | 129 participant surveys |
| Non-participant surveys | 10 non-participant surveys | 385 non-participant surveys |
| Participant in-depth interviews | 75 participant interviews | 5 participant interviews 6 customer web usability tests |
| Literature/peer reviews | 4 best practice/peer reviews | 3 best practice/peer reviews |

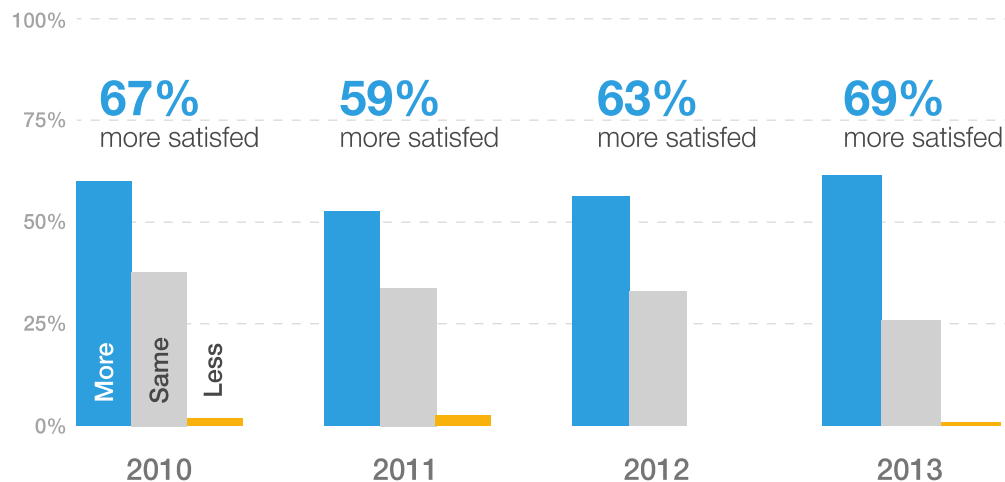
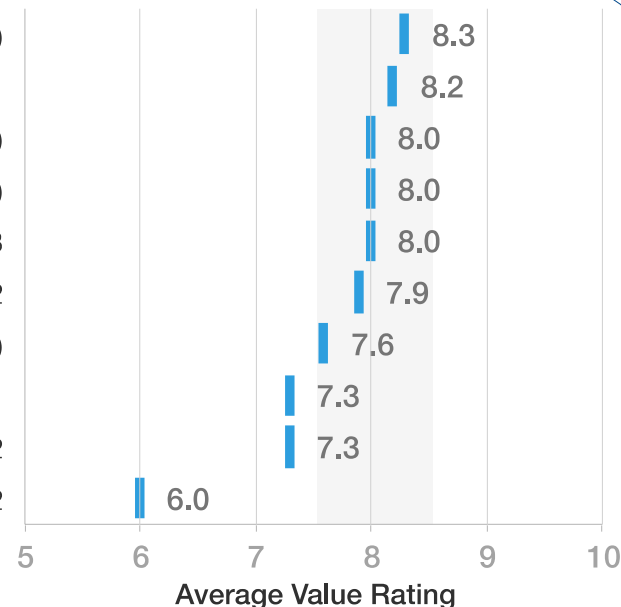
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- **Customer satisfaction has consistently been very high across all C&I programs**
 - Most participants are more satisfied with Consumers Energy after participating
 - Satisfaction tends to be highest for interactions with program staff and performance of equipment
 - Satisfaction high but not as high for length of time to receive rebates and energy savings

Key Insight: Satisfaction Generally Strong

Satisfaction scores consistently fall in the 7.5 to 8.5 range.

- Hospitality 2012 (Process)
- Direct Install 2011
- Programmable Thermostat (2011)
- Programmable Thermostat (2012)
- Business Solutions 2013
- Business Solutions 2012
- Hospitality 2012 (Impact)
- Business Solutions 2011
- New Construction Pilot 2012
- Agricultural Pilot 2012



Most participants report being more satisfied with Consumers Energy after participation.

Support for Trade Allies

Successes



There is a **large base** of engaged trade allies who promote programs and serve diverse regions



Trade ally **satisfaction** very high across programs



Programs provide a large **source of business** for some trade allies

Challenges



Trade allies are interested in ways to **simplify** the application process



Independent contractors not frequently using CE-branded **marketing materials**

Program Implementation

Successes



Communication between implementers and program staff very good

Professional relationship results in timely & accurate information exchange between program, implementer, and trade allies



Program implementers meet internal performance metrics related to **project timeliness**



Programs have improved **resource management** so that program closures and waitlisting are no longer too problematic

Challenges



Awareness of energy savings opportunities does not always **lead to action**



Cross-program marketing and knowledge limited

Next Challenge: Greater engagement, awareness ¹⁷

Market Penetration

Successes



Programs consistently **meet and exceed** savings goals



Programs have effective **QA/QC** that result in high installation rates



Programs and staff flexible and **adapt** to dynamic program environment

Challenges



Participants **unaware** of some program offerings



Customer report more **“noise”** in market for EE

Programs face challenge of engaging customers **beyond lighting** upgrades



There is **room to engage** customers, who view CE as credible source of EE info

- **Cross-cutting Customer & Trade Ally Study (2013)**
 - On-going research to understand how to engage customers and trade allies
 - Customers who participate in EE programs are more satisfied with Consumers Energy overall than those who have not
 - Customer satisfaction with Consumers Energy increasing across the board
 - Message testing of postcards found customers respond best to concise postcards with minimal text and clear instructions

- **How do we use the findings from process evaluations?**
 - Program, implementation, and evaluation staff review the findings from the evaluations and develop recommendations
 - Recommendations are either implemented immediately or incorporated into future program designs
 - The following slides have some examples of how we've used the process evaluations to improve our programs

- **Business Solutions Process Evaluation:**
 - In 2009, participants with more complex projects found the rebate process confusing, but were able to get support from program staff or their contractor when needed
 - In 2010, program material included more examples to illustrate program requirements to combat these concerns up-front; CAMs and trade allies were informed of changes to requirements

- **Business Solutions Process Evaluation (cont.):**
 - In 2009, trade allies found the program brochure to be unhelpful for their purposes of promoting the program to customers
 - In 2010, new marketing materials were created to address these concerns, including “leave behind” factsheets, flyers, and booklets to have specific examples of measures and savings
- **Cross-cutting Trade Ally Study (2013): Trade allies interested in more communication and improved marketing materials**
 - Steps being taken to add more email updates, tailor content of materials

- **Direct Install (2011): Contractors disliked receiving multiple notices of funding increases and stoppages**
 - Only one notice sent in 2013 when funds 80% committed
- **Web usability study (2012): small business contractors want to be able to generate customer-facing form from software tool**
 - This and other recommendations are being used to develop iPad application (still in development)
- **Multiple Measure Pilot (2012) found that contractors are open to coordinating more with contractors from different professional specialties, which is critical to achieve deeper, comprehensive savings across multiple measure types**

- **Programmable Thermostat (2011): technicians' lack of logo wear caused customers to question identity of installers**
 - In 2011, installers provided with badge and shirts, which appeared to help
- **Some programmable thermostats replaced programmable thermostats (2011)**
 - More training provided to technicians to avoid this practice and educate customers about the differences between their old thermostat and the new one

- **Pilot program evaluations assess if programs are designed and implemented in a way that can be successfully and cost-effectively scaled up to full program**
 - Pilot programs are largely in-line with best practices and peer programs in terms of market segmentation, program design, and incentive structure
 - Data collected during evaluations have helped support the incorporation of pilots into the Business Solutions Program:
 - Compressed Air
 - Building Operator Certification
 - New Construction
 - Multiple Measures

- **New Construction Pilot (2011): Incentive structure was not profitable enough to encourage architects and design teams to participation**
 - In 2013, larger incentives were set for design professionals to make participation worthwhile
- **There was a need for additional outreach to the design community, to engage with participants before building design begins**
 - Program outreach strategy has changed to expand outreach efforts and contact developers and design professionals earlier in the design phase

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Scope of residential process evaluations

Program Process Evaluations

| PY2009 | PY2010 | PY2011 | PY2012 | PY2013 |
|---|---|---|--|--|
| ENERGY STAR Lighting HVAC and Water Heating Appliance Recycling | ENERGY STAR Lighting ENERGY STAR Appliances HVAC and Water Heating Income Qualified WX Appliance Recycling Multifamily Think!Energy | ENERGY STAR Lighting ENERGY STAR Appliances HVAC and Water Heating Appliance Recycling Multifamily Think!Energy Home Performance w/ ENERGY STAR | ENERGY STAR Lighting ENERGY STAR Appliances HVAC and Water Heating Income Qualified WX Appliance Recycling Home Performance w/ENERGY STAR Think!Energy New Construction | ENERGY STAR Lighting Multifamily Think!Energy Home Energy Analysis Insulation and Windows Home Performance with ENERGY STAR OPower |
| | | OPower | Home Energy Analysis | Ongoing Customer Satisfaction |
| Pilots and Cross Cutting Process Evaluations | | | Marketing Effectiveness | |

Process Evaluation Activities by Program

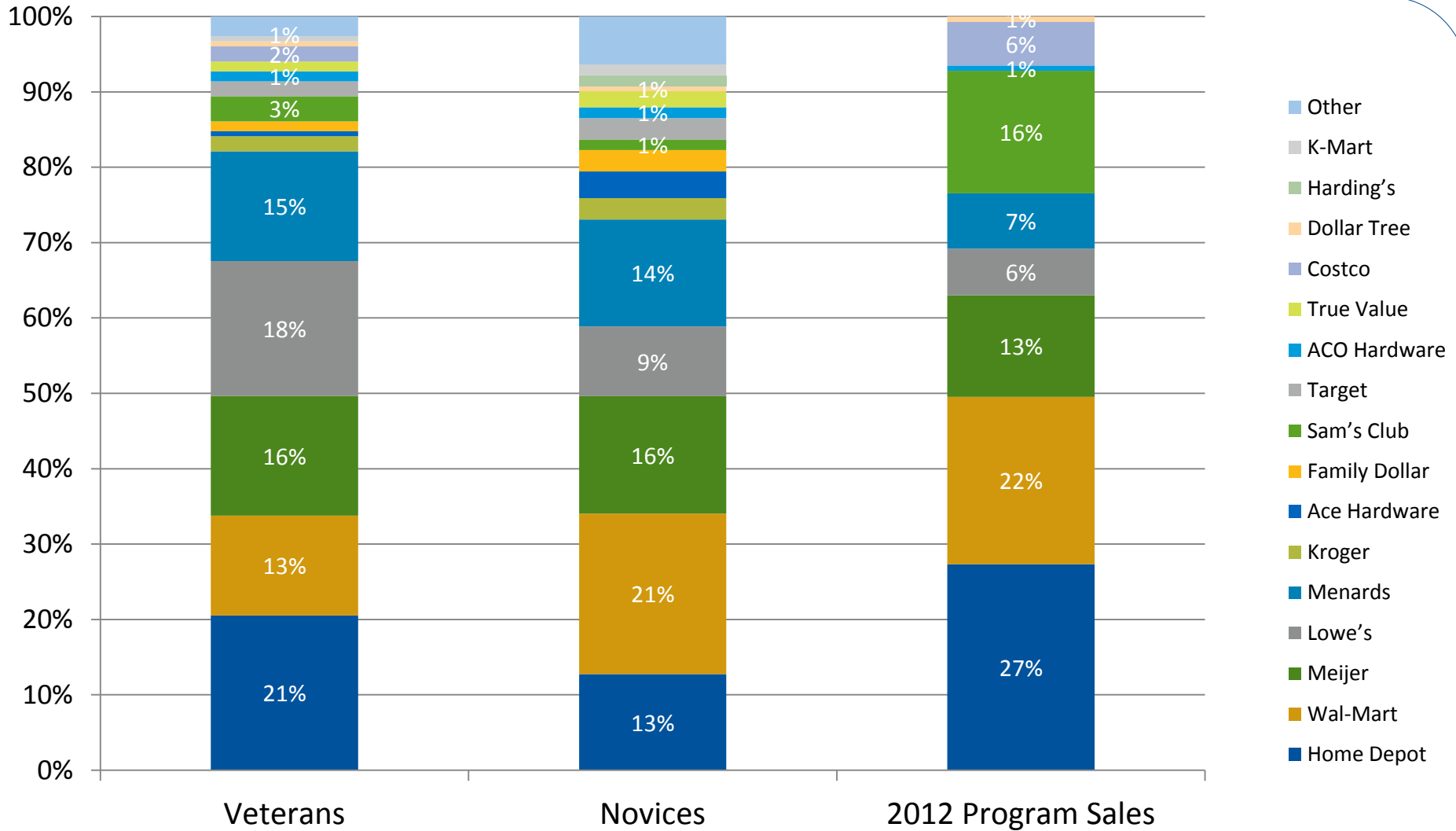
| | Lighting | ENERGY STAR Appliances | HVAC & Water Heating | Income Qualified WX | HP W ENERGY STAR | Home Energy Analysis | Insulation and Windows | Think!Energy | Multifamily | Appliance Recycling | New Construction | OPower |
|---------------------------------------|----------|------------------------|----------------------|---------------------|------------------|----------------------|------------------------|--------------|-------------|---------------------|------------------|--------|
| Stakeholder interview | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Participant surveys | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Market partner interviews | ✓ | | ✓ | ✓ | ✓ | ✓ | | | | | ✓ | |
| Focus groups | ✓ | | | | ✓ | ✓ | ✓ | | | | | |
| Evaluability assessment | | | | ✓ | | | | | ✓ | | ✓ | ✓ |
| Materials & database review | | | | ✓ | ✓ | | | ✓ | | | | ✓ |
| Field observation (ride alongs) | | | | ✓ | | ✓ | | | | ✓ | | |
| Benchmarking | | | | | | | | | ✓ | | | |
| General population surveys | | | | | | | | | | | | |
| Marketing effectiveness review | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| Ongoing customer satisfaction surveys | | ✓ | ✓ | | ✓ | ✓ | ✓ | | | ✓ | | |

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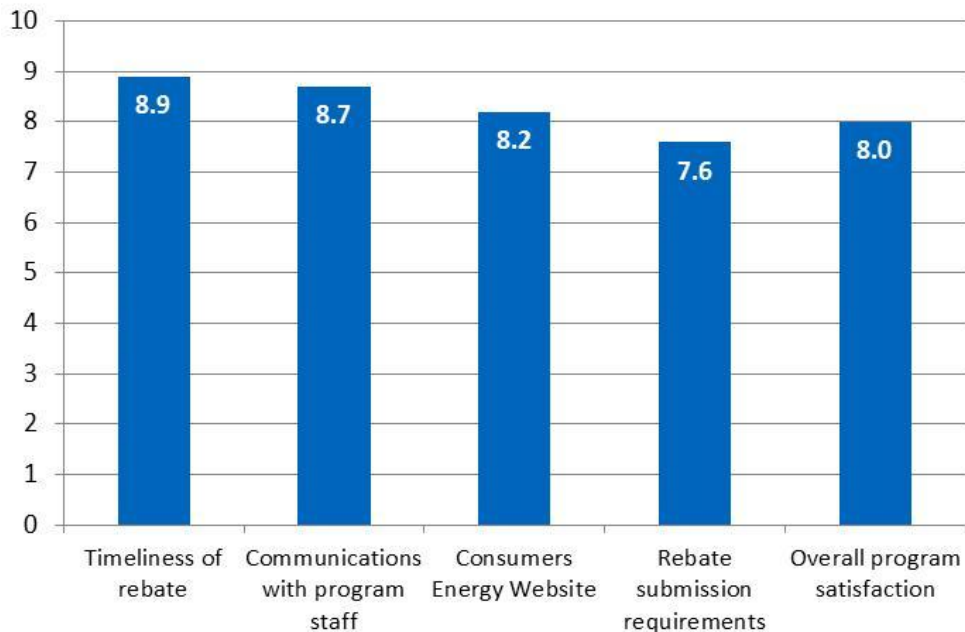


- Store manager interviews provide input on bulb selection, effectiveness of point of purchase materials and in store displays, training and educational needs of store staff and customers
- Focus groups and customer surveys inform customer awareness, purchasing patterns, and pricing and promotions with most appeal

CFL Purchases and Bulb Sales

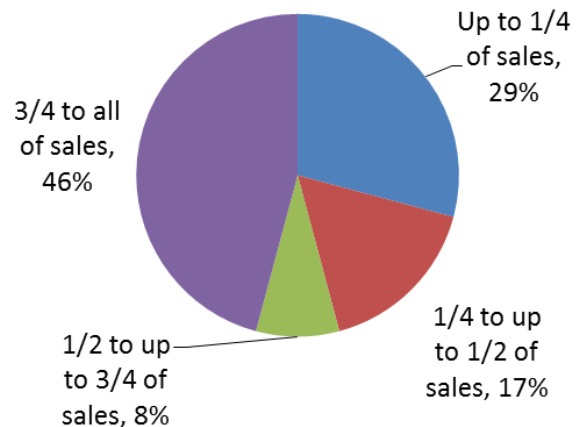


- Contractor interviews rate satisfaction with program elements and potential for program expansion

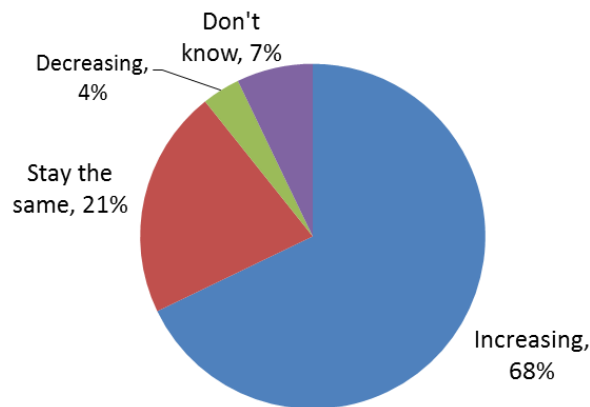


Satisfaction on a Scale of 1-10

Percent of Sales Leveraging Rebates

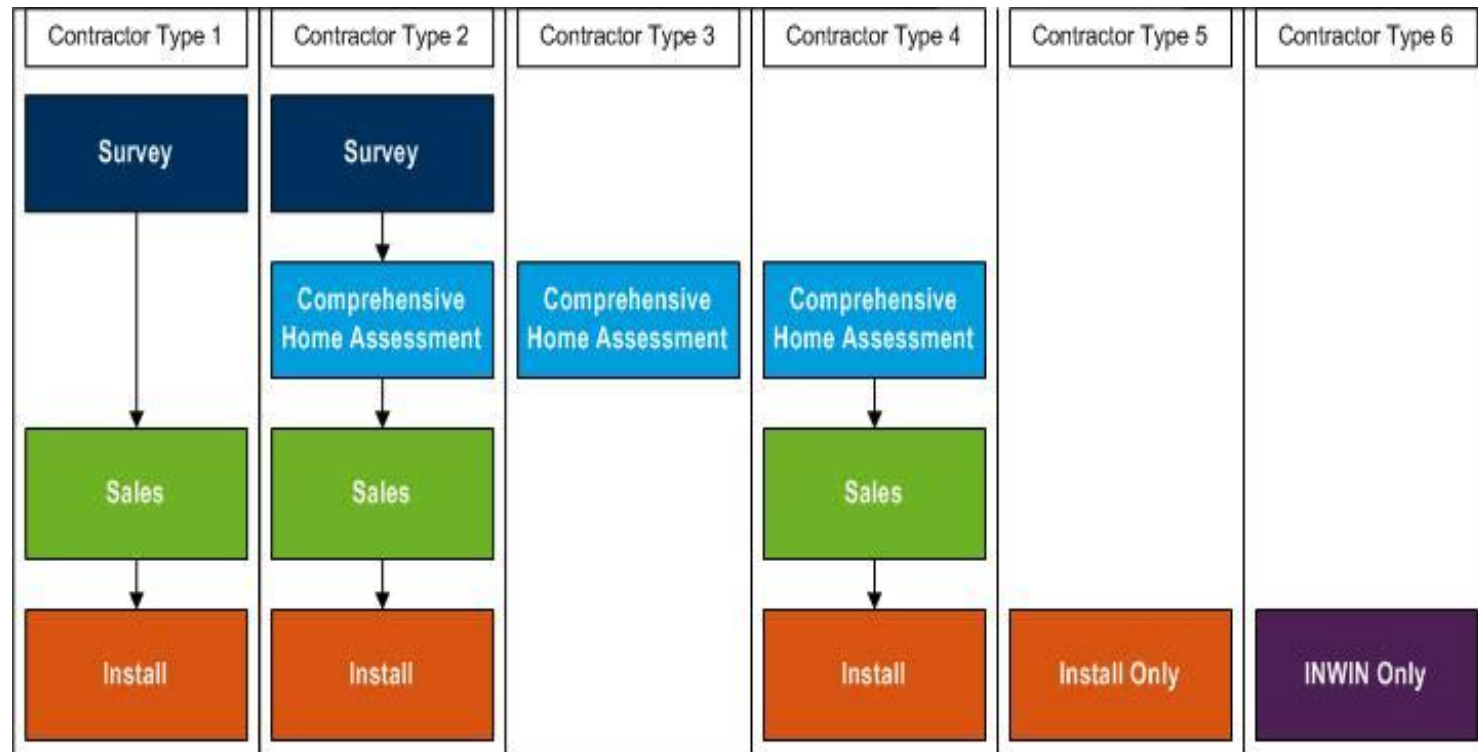


Demand for Energy Efficient Equipment

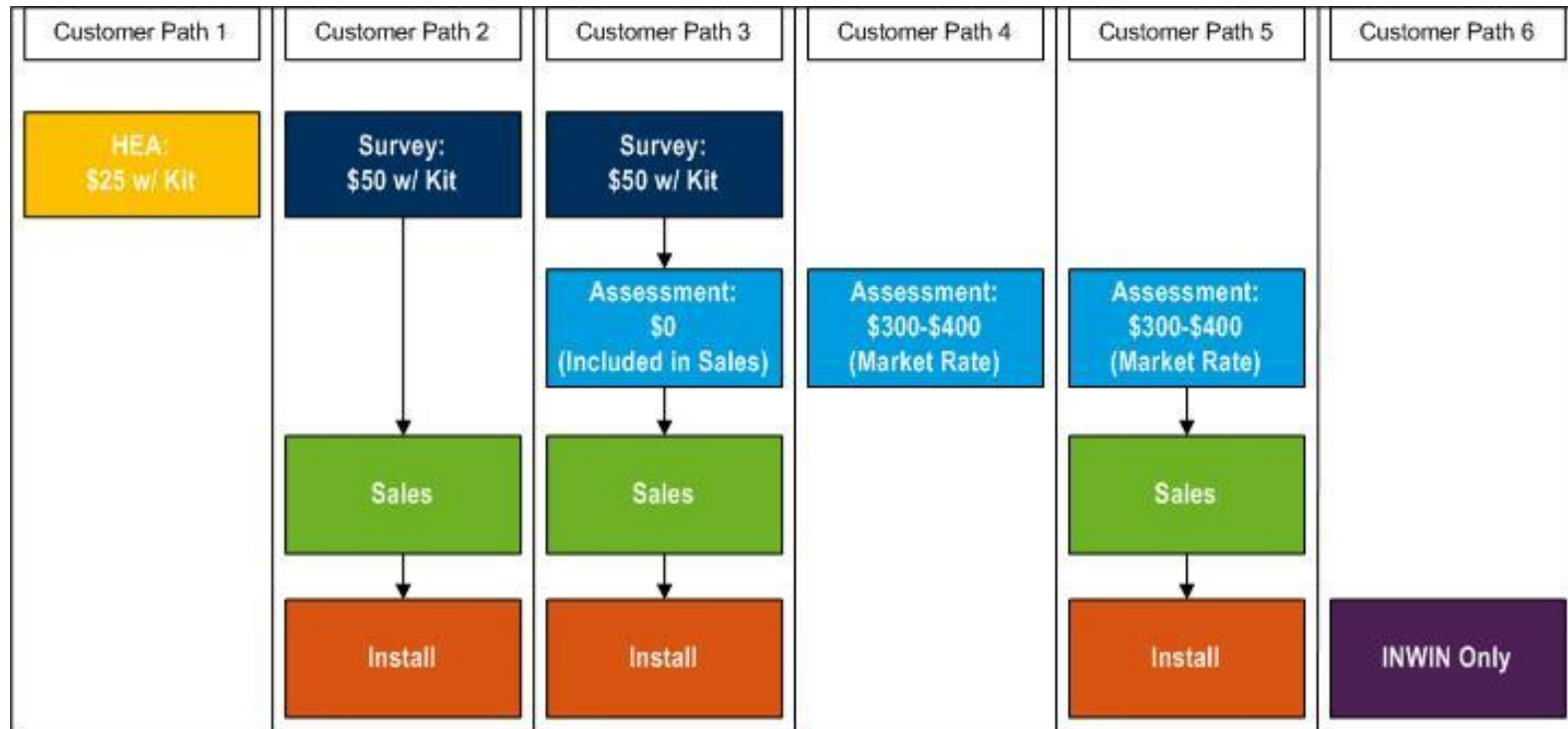


- Focus groups with customers and contractors helped to identify various ways the program is delivered

Contractor View of the Program



Customer View of the Program



Appliance Recycling Program Overview

2012 ACCOMPLISHMENTS



24,682

households recycled
27,021 appliances
- including 25
dehumidifiers and 31
air conditioners.



101%

of the program's electric
savings goal was
reached (43,856 MWh).



5,400*

homes can be powered for one
year with the electric savings
achieved (44,736 MWh).

*Average consumption per home 8,229 kWh
per EIA electric and sales statistics.

HOW SAVINGS WERE ACHIEVED



20,489

refrigerators were
recycled in 2012.



6,476

freezers were
recycled in 2012.



3,126

easy-to-install Energy
Efficiency (EE) Kits
were handed out as
part of the ARP for a
portion of the year.

**A NEW RETAILER
PARTNERSHIP
WAS LAUNCHED
IN 2012**

HOW PARTICIPANTS HEARD ABOUT THE PROGRAM



53%

**BILL
INSERTS**



17%

**WORD-OF-
MOUTH**



14%

TELEVISION



4%

**ONLINE
MATERIALS**



4%

EMAIL



4%

OTHER



2%

RETAILER



1%

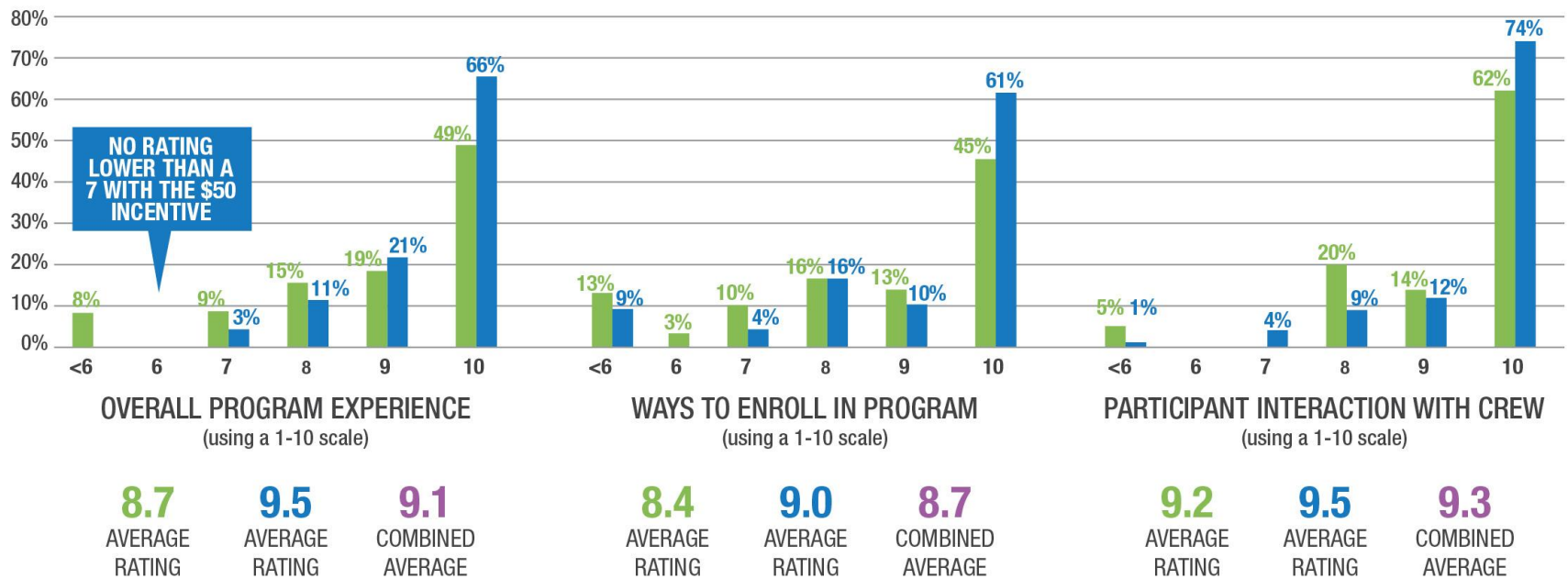
RADIO

Appliance Recycling Program: Customer Satisfaction

90% of participants reported an overall satisfaction level of 8 or greater (using a 1-10 scale).
2012

CUSTOMER SATISFACTION LEVELS VARIED BY INCENTIVE AMOUNTS

■ \$30 Incentive ■ \$50 Incentive

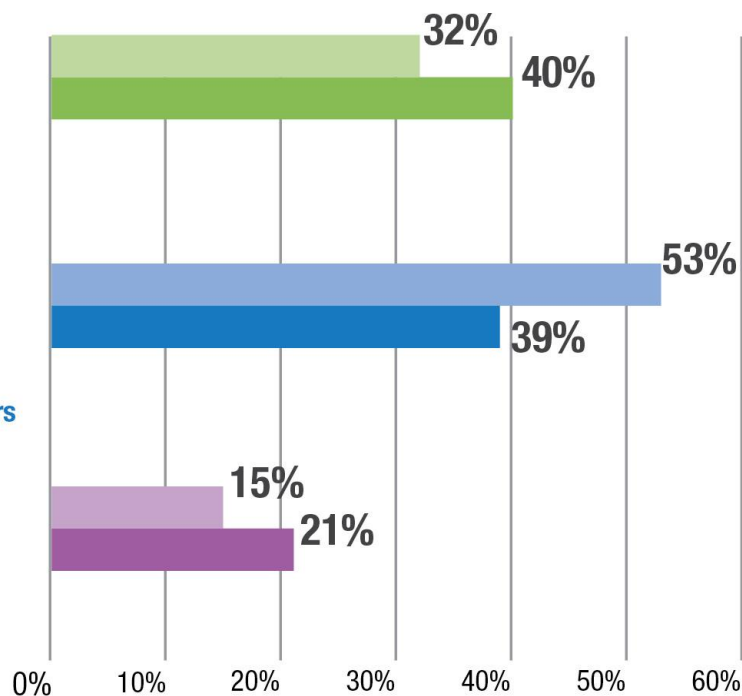
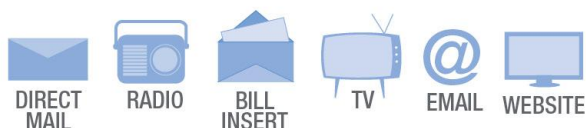
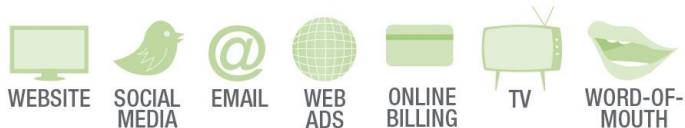


Appliance Recycling Program Participation By Cluster

% of Appliance Recycling Participants (24,682)

 % of Customer Base

PREFERRED COMMUNICATION CHANNELS:



Increasing Awareness Is The **First Step** To Increasing Participation

WHAT DRIVES CUSTOMER VALUE



INCREASE AWARENESS

Raise customer awareness of energy efficiency use.

CATALYSTS

- High bills
- Equipment failure
- Word of mouth testimony

75%

of customers believe that their home is already somewhat or very efficient.

2012



SHIFT PERCEPTIONS

Influencing customer attitudes and engaging those with low propensity to participate in energy efficiency programs.

CATALYSTS

- Utility marketing
- Utility education
- Contractor advice

55%

of customers feel they have already done as much as they can to save energy in their home.

2012



PROVIDE REAL SOLUTIONS

Effectively targeting customers with messaging that speaks to their needs.

CATALYSTS

- Whole house approach
- Program incentives
- Ease of participation

49%

of customers who were very concerned about having the money to pay basic household bills were aware of programs.

2012



LEVERAGE CUSTOMER SATISFACTION

Increase customers' likelihood to recommend and participate in additional programs through strong program delivery and increased satisfaction.

CATALYSTS

- Realize and value results
- Bills become lower
- Home becomes more comfortable

36%*

of customers indicate they would recommend Consumers Energy to a friend.

2012

*Represents the proportion of 9 and 10 responses on a scale of 1-10

I ♥ CONSUMERS

Shaping Attitudes- Leverage Motivations and Reduce Barriers

Engage targeted customer segments through increased understanding of customer drivers and barriers.

BARRIERS

55%

THINK THEY HAVE
ALREADY DONE AS MUCH
AS THEY CAN DO TO SAVE
ENERGY IN THEIR HOME

75%

OF CUSTOMERS BELIEVE
THAT THEIR HOME IS
ALREADY SOMEWHAT
OR VERY EFFICIENT

59%

THINK IT'S HARD TO
KNOW IF IT WILL BE
WORTH IT

52%

DO NOT THINK ABOUT
EFFICIENT EQUIPMENT
UNTIL SOMETHING
BREAKS

76%

VALUES RELIABILITY &
QUALITY OVER COST

73%

NEED CONVENIENCE
FOR BUSY LIFESTYLE

71%

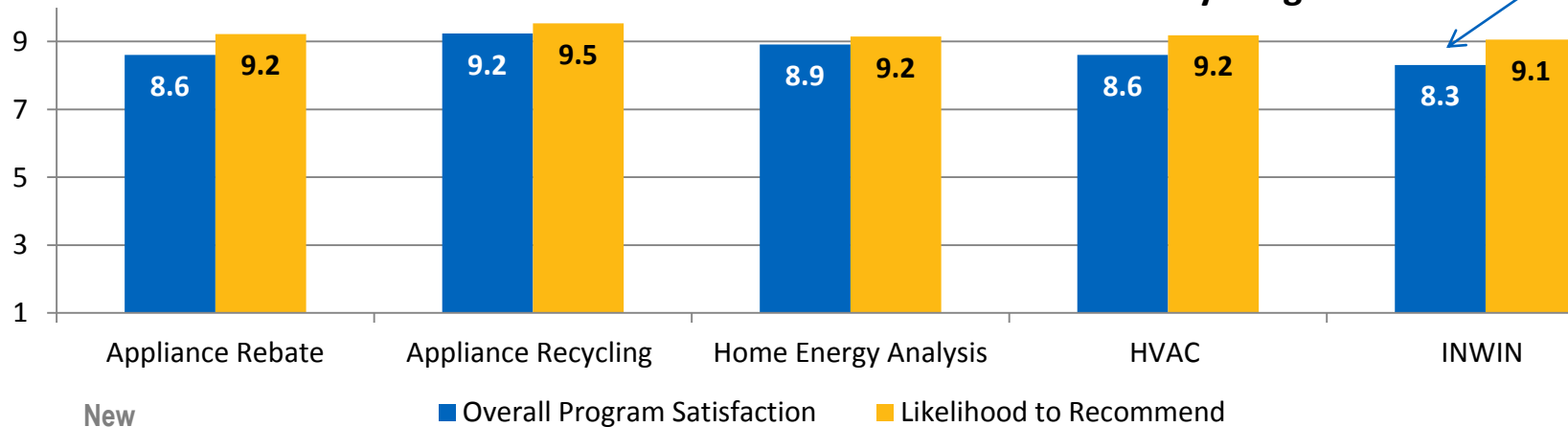
WILL PAY MORE FOR
ENVIRONMENTALLY
FRIENDLY PRODUCTS

62%

PURCHASE BASED ON
AFFORDABILITY

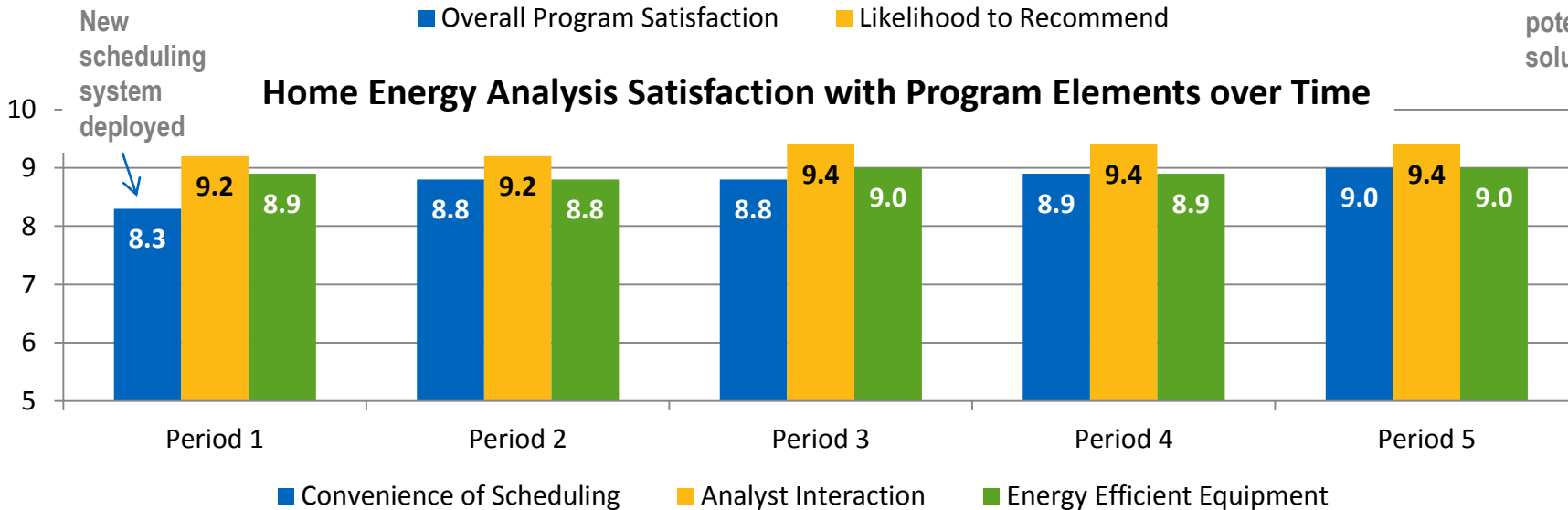
MOTIVATORS

YTD Satisfaction and Likelihood to Recommend by Program



Noted difficulties in application process; flawed application review is being conducted to identify problem areas and potential solutions

Home Energy Analysis Satisfaction with Program Elements over Time



- **Primary Residential Evaluation Consultants**
 - The Cadmus Group
Jill Steiner
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- **Primary Commercial and Industrial Evaluation Consultants**
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