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Final Report

# Existing Homes Process Evaluation

April 2014



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April 2014

Funded By:  
Energy Trust of Oregon

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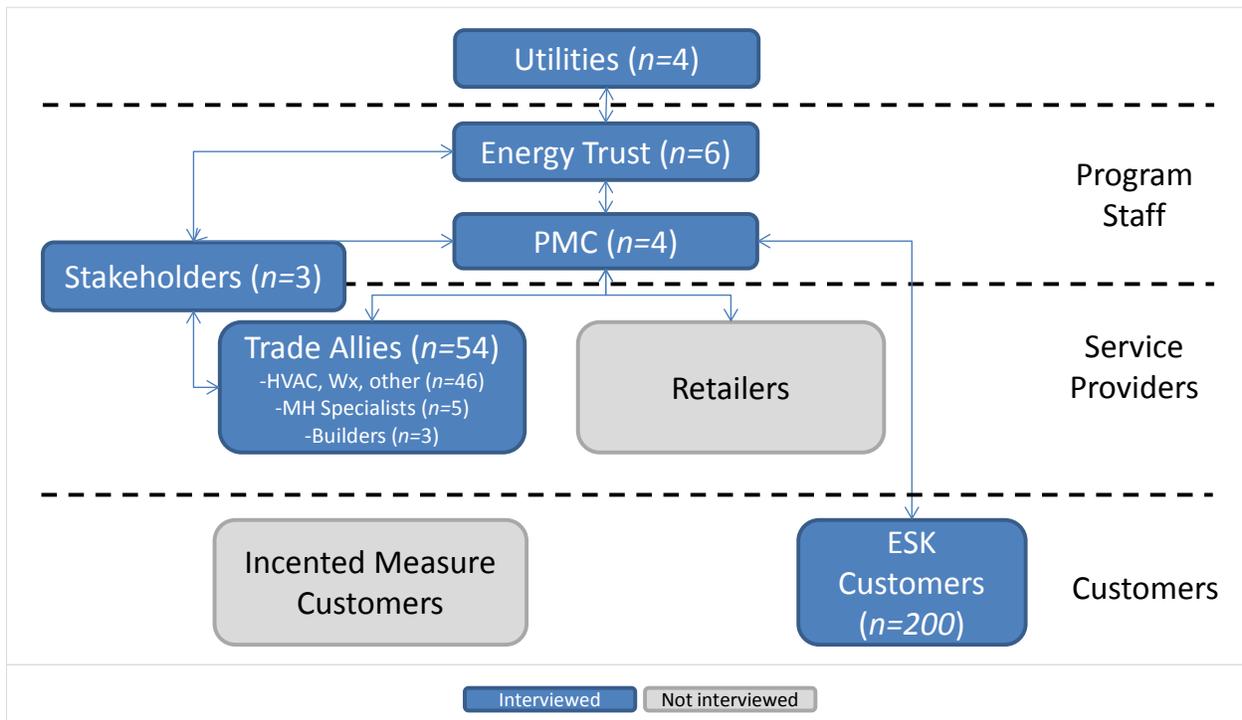
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# Executive Summary

In this report, Research Into Action, Inc. presents findings from its process evaluation of Energy Trust of Oregon’s (Energy Trust) Existing Homes program (“EH” or “the program”). In 2012, Energy Trust selected Fluid Market Strategies (Fluid)<sup>1</sup> to replace Conservation Services Group (CSG) as the program management contractor (PMC) from January 1, 2013 through December 31, 2014 with the option to renew its contract in subsequent years. This evaluation focused on the transition to a new PMC, identified successes and challenges related to the transition, and identified possible steps the program could take to improve the program going forward. Since Energy Trust also selected Fluid to implement the New Homes program in Washington, this evaluation also addressed the transition to the new PMC for that program.

This evaluation relied on in-depth interviews with six Energy Trust and four implementer staff, interviews with three representatives of stakeholder groups, interviews with representatives of four utilities, surveys of 54 trade allies, and surveys of 200 recipients of Energy Saver Kits (ESKs). Figure 21 provides a diagram of all market actors related to the program and identifies which market actors we surveyed and their relationship to other market actors.

**Figure 1: Diagram of Market Actors**



<sup>1</sup> Fluid Market Strategies was renamed CLEARResult Inc. in December 2013.

We gained an understanding of the program through review of program documents and data, such as program websites and monthly reports submitted by the PMC to Energy Trust. Additionally, this review informed our development of the surveys and interviews.

Below are key findings organized by data source.

### Staff Feedback and Document Review

The first year with Fluid as the new PMC saw some successes, but also a range of challenges for both Energy Trust and Fluid.

Fluid revised the program implementation manual making it more detailed than the prior version of the manual and more usable by all staff. Instructions for program processes are clearer because of this revision. Additionally, Fluid revised the application forms, improving the usability of program paper and web forms for contractors and homeowners. These improvements also reduced the administrative burden and costs related to paper-based forms. Fluid also increased outreach to rural areas, particularly Eastern Oregon, and pursued a strategy of developing more trade allies in those areas of the state. Energy Trust welcomed that strategy and it appears to be yielding some benefits for the program, although it is too early to tell the extent to which these efforts will result in additional savings.

The accuracy of capturing and using program data to help make decisions has improved in 2013. Fluid has used program data to improve the reports Energy Trust receives and has plans to continue to use data to better inform program decisions than was possible in the past.

Perhaps the greatest challenge Energy Trust and Fluid staff faced was how to identify and address their differing expectations regarding their priorities and roles. Energy Trust and Fluid appeared to have differing expectations regarding the need to balance savings goals with other program priorities and regarding each entity's need to adapt to the other's business practices.

A notable change in the program was the de-emphasis of the measures associated with Energy Saver Kits (ESK) (aerators and compact fluorescent lamps (CFLs) primarily). Under Fluid, the program purposely did not promote ESKs, even though in years past ESKs constituted the majority of savings for the program. Without an obvious replacement for the ESK savings the program struggled to meet savings goals in 2013.

Both Fluid and Energy Trust staff identified communication challenges related to the approval and implementation of marketing efforts for the EH program. Fluid struggled to meet Energy Trust's requirements for the marketing plan and Energy Trust's requirements and processes presented challenges to Fluid's ability to launch marketing campaigns in a timely manner.

In the first part of the year, Fluid's staffing model stretched some staff too thin and assigned high-level staff to some tasks that lower-level staff might be able to perform. As a result, staff roles were not always clear and responsibilities shifted as Fluid tried to adapt to the program's needs. Differences between the two entities in expectations regarding budgeting for staffing may have contributed to these issues.

Finally, a backlog of projects in the Energy Trust IT department and lack of clarity about project priorities may have delayed improvements in payment processing and in the implementation of tools intended to support Fluid's marketing strategies.

### Trade Allies

The majority of trade allies noted mostly positive changes to the program in 2013 compared with prior years. Most positive comments related to the improvements made to forms, but covered other program aspects. These positive changes resulted in more satisfied trade allies.

Trade allies largely promote Energy Trust incentives using one-on-one communications with customers and on documents such as project bids. Brochures and other materials with Energy Trust information are used, but not emphasized as much as personal communications with customers.

The trade allies that work in both Oregon and Washington generally did not note any differences between the programs in each state.

### Manufactured Homes

Manufactured home trade allies also noted changes to the program in 2013, most focusing on program communication and application forms; they were equally likely to cite positives as negatives. The changes noted did not appear to affect the business operations of the manufactured home trade allies.

The small sample of trade allies we interviewed tended to regard the manufactured homes sector as largely saturated with energy efficiency services provided by Energy Trust and other organizations in most of the state, with the exception of Salem and the Columbia Gorge. This must be weighed against the finding that according to Energy Trust data on homes served by the program, roughly 16% of manufactured homes in Energy Trust territory have been served since program inception. Some areas of the state such as Eastern Oregon have received very little service from Energy Trust. This analysis together with market research that includes a larger sample of trade allies, more detailed information about the age of manufactured homes in each region, and data from community organizations would provide a clearer picture on the degree of market saturation.

### Builders

Builders in Southwest Washington were aware of the New Homes program in Washington, but largely received their program information from their verifiers that provide Energy Star certification of their homes. The builders would like to see Energy Trust promote efficient homes and contribute to creating more demand for energy efficient homes than promoting the program to builders.

### Energy Saver Kit (ESK) Recipients

A-lamp bulbs and CFL bulbs were the most common measures installed by ESK recipient rates with almost three of four installing these measures. The least commonly installed measures were kitchen aerators and reflector bulbs with about half of recipients installing those items. The most common reason given for not installing these items were they did not fit existing fixtures.

Income appeared to affect how people learned about the availability of ESKs. Those reporting less than \$50,000 in annual household income were more likely to report they learned about ESKs through their utility whereas those earning over \$50,000 were more likely to report they learned about the program through word-of-mouth, Energy Trust, or some other source.

Of ESK recipients that took an efficiency related action after receiving the kit, the majority reported purchasing efficient light bulbs.

Households that had used the Home Energy Profile tool were significantly more likely to be younger (less than 50 years old), with at least a college education or with higher education, have a household income of \$50,000 or more, and be Caucasian.

### Coordination with Utilities

Communications and coordination between Energy Trust and the utilities are generally working well. Contacts reported that program marketing and delivery are going well and the organizations work together effectively; as a result, customers generally are clear about program offerings and how to access them. Collaboration and coordination appears to work best when there is direct and regular communication, including regular communication outside of planned meetings. One possible improvement area is providing greater and earlier information sharing between Energy Trust and the utilities in program planning and fostering greater collaboration in the use and training of outreach contractors and trade allies

### Conclusions and Recommendations

**Conclusion:** Fluid and Energy Trust staff differ regarding how to balance the program's need both to deliver savings and meet other needs, such as customer service, program equity, and compliance with policies and regulations. Fluid focused on delivering savings, but Energy Trust has other needs that may or may not have been made clear during contract negotiations and the first year of the transition. Lack of communication between Energy Trust and Fluid staff exacerbated this and other challenges.

**Recommendation:** Energy Trust and Fluid should revisit Fluid's contract and statement of work to more clearly outline Fluid's responsibilities in meeting Energy Trust's needs related to non-savings goals. As part of that process, Energy Trust and Fluid should clarify communication lines, processes, and expectations.

**Conclusion:** The program chose to make a notable shift in program priorities by abandoning ESKs, an activity that brought in a large amount of savings in years past, in exchange for pushing more projects driven by trade allies and consumers. However, the shift away from ESKs came before the program was adequately positioned to replace those savings with incented measures. To move away from relying on ESKs for savings, it is key to market other program offerings to build awareness of offerings among customers and contractors.

**Recommendation:** The program needs to improve coordination between program marketing staff and Fluid. This includes Energy Trust's providing access to data Fluid needs to conduct targeted marketing or allowing Fluid to use alternative methods to conduct targeted marketing.

**Conclusion:** The CRM tool that Fluid was planning on using for their targeted marketing was not available when anticipated. When this became clear, developing alternatives to using the CRM tool should have been a priority to both Energy Trust and Fluid.

**Recommendation:** When faced with an obstacle such as a key tool not being available when necessary, Energy Trust should permit alternative approaches or otherwise be proactive in assisting the PMC to develop alternatives.

**Conclusion:** Some lack of coordination and communication between Energy Trust program and non-program staff may have undermined the program. Specifically, resolving tensions between program and finance staff about the appropriate balance between best practice accounting procedures with operational effectiveness and determining EH priorities for the information technology (IT) department could have made the program run smoother in 2013.

**Recommendation:** In 2014, program and non-program staff may want to determine ways to better meet each other's needs by having strategy meetings or engaging in discussions to better address each other's concerns.

**Recommendation:** Energy Trust program staff and Fluid staff should work together to identify program priorities, and Energy Trust Existing Homes program staff should work with the Energy Trust IT department to identify and resolve any conflicting priorities (e.g., with other Energy Trust programs).

**Conclusion:** Continually making application forms easier to use for trade allies and homeowners can help automate the payment verification process, reducing the amount of Energy Trust staff time spent reviewing paper applications and verifying payments.

**Recommendation:** Fluid should continue to work to make paper and online forms mirror each other and promote online forms to trade allies.

**Conclusion:** ESK items are not always installed upon receipt. Many ESK items do not get installed because the equipment does not fit or the recipient received too many of a certain item.

**Recommendation:** Energy Trust and Fluid program staff should jointly consider building more flexibility into ESK orders to enhance customization and provide better item descriptions so that recipients are more likely to install the measures they order.

**Recommendation:** Fluid should consider sending follow-up notices to ESK recipients soon after they receive shipment to encourage them to install equipment, providing the call center number for questions they may have.

**Conclusion:** Evidence on the degree of saturation of energy efficiency services in the manufactured homes sector is equivocal. A small sample of trade allies reported high saturation in most parts of the state, but analysis using Census data indicates that recent Energy Trust market penetration is low.

**Recommendation:** If it is a high priority to obtain a clear picture of the degree of market saturation of energy efficiency services in the manufactured homes sector, Energy Trust should conduct analyses of the reach of Energy Trust projects over a larger time frame as well as market research that includes a larger sample of trade allies and data from community organizations.

# MEMO

**Date:** June 11, 2014  
**To:** Board of Directors  
**From:** Marshall Johnson, Residential Sector Manager  
Sarah Castor, Evaluation Sr. Project Manager  
**Subject:** Staff Response to the 2013 Existing Homes Process Evaluation

Energy Trust undertook a process evaluation of the Existing Homes program in 2013, primarily to assess the effects of the transition to Fluid Market Strategies (since renamed CLEAResult) as program management contractor (PMC) on internal and external processes, communications and relationships.

Since the evaluation was conducted, Energy Trust and CLEAResult have taken several steps to improve communication and coordination between the organizations. Program and PMC staff conducted a series of “summit” meetings with Energy Trust Planning and Evaluation, IT and Finance groups in early 2014 to help to define collaboration approaches, map staff roles and responsibilities and prioritize joint projects. A Savings Action Plan was developed for the first half of 2014 to provide a roadmap for meeting savings goals. This plan has brought staff from both organizations to agreement on strategies and use of resources.

Earlier this year, Energy Trust changed its approach to forms maintenance in an effort to align web and paper forms. This change has made it easier for CLEAResult staff to request changes to forms, and should result in forms that are easier for both customers and trade allies to complete.

In late 2013, the program conducted its first targeted marketing campaign using Energy Trust’s Customer Relationship Management (CRM) campaign functionality to track results of an email to promote Energy Saver Kits. This project involved the cooperation of many groups from both organizations to join data from multiple Energy Trust systems, and was considered a success with a 6% response rate (double the standard response rate for such an effort) and savings of over one million kWh and 30,000 therms.

The survey of 2013 Energy Saver Kit recipients revealed an improvement in installation rates of kitchen aerators from offering custom kits rather than the static kits of 2012 and earlier. Installation rates are still somewhat low for some specialty light bulbs and bath aerators. The program will continue to research bulb options and ways to improve the web order form to best meet customer needs, as well as pursue a method of following up with customers to remind them to install their kit components, as recommended by the evaluator.

The program recognizes kits have an important part in savings acquisition and customer engagement and should be utilized strategically. The Savings Action Plan includes a larger role for kits than they carried in 2013.

The program's relationships with utilities are working well and staff will strive to provide opportunities to collaboratively develop meeting agendas and continue to support the training of utility marketing outreach staff.

While the evaluation notes that more research would be needed to accurately estimate the degree of saturation of weatherization services in manufactured homes, staff feel the analysis from this report and evidence from other sources is sufficient to recommend a shift in strategy for this market, de-emphasizing weatherization and focusing more on promoting efficient heating equipment.

# 1. Introduction

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In this report, Research Into Action, Inc. presents findings from its process evaluation of Energy Trust of Oregon's (Energy Trust) Existing Homes program ("EH" or "the program") and a brief review of Energy Trust's New Homes program in Washington.

As part of Energy Trust's continuous improvement process, Energy Trust periodically reviews its contracts with their Program Management Contractors (PMC), the firms that implement Energy Trust programs. Energy Trust uses a competitive bidding process to select the most appropriate firms to serve as PMCs. Through this process, Energy Trust seeks innovative ideas about program delivery and effective use of ratepayer funds.

In 2012, Energy Trust released a Request for Proposals (RFP) for a PMC to implement the EH program throughout Energy Trust's territory. Conservation Services Group (CSG) had served as the PMC of the Existing Homes program since 2006. Energy Trust selected Fluid Market Strategies (Fluid)<sup>2</sup> to serve as PMC from January 1, 2013 through December 31, 2014 with the option to renew its contract in subsequent years.

Energy Trust included implementation of the New Homes program it delivers in Southwest Washington as an optional task under the RFP. PEGI had served as the PMC of the New Homes program in Washington since Energy Trust began offering services and incentives there in 2009. Fluid's proposal included that task, and Energy Trust awarded that task to Fluid as part of its contract as EH program PMC.

Through another RFP process, in September 2013, Energy Trust awarded Research Into Action a contract to conduct a process evaluation of the EH program, one focus of which was the transition to the new PMC. Since the new PMC for the EH program also was the new PMC for the New Homes program in Washington, Energy Trust asked Research Into Action also to provide information on that transition as part of its research for the EH evaluation. Research Into Action conducted the evaluation from September 2013 to January 2014.

## 1.1. Program Overview

The EH program provides resources to residential property owners, stakeholders, and regional entities to assist them in implementing energy-saving measures. The program offers cash incentives to owners of single-family homes and manufactured/mobile homes who implement selected electric or gas energy efficiency measures in their home. In 2012, and before, the program offered incentives for duct and air sealing, but the program eliminated those incentives in 2013. Additionally, the program provides free Energy Saver Kits (ESK) consisting of showerheads, faucet aerators, and compact fluorescent lamp (CFL) bulbs to home owners, as well as air and duct sealing to owners of manufactured homes.

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<sup>2</sup> Fluid Market Strategies was renamed CLEARResult, Inc. in December 2013.

The program is implemented by a PMC on behalf of Energy Trust, which works closely with Energy Trust program management and marketing staff. PMC staff provide support for program delivery across several program elements including managing the Existing Homes contact center, providing marketing support for the program, supporting trade allies, providing training, encouraging and supporting new initiatives, and overseeing quality control. In late 2012, Energy Trust began to transition program implementation from CSG to Fluid; Fluid became the official PMC on January 1, 2013. Under the current contract, Energy Trust also tasked Fluid with delivering the New Homes program services to residential customers in Southwest Washington served by NW Natural.

## 1.2. Evaluation Overview

Under a contract awarded in September 2013, Research Into Action conducted a process evaluation of the program during the important first year of Fluid’s management of the program. Per the contract with Energy Trust, we focused our evaluation on the following goals:

- › Assessing the transition to a new PMC, including documenting the program’s structure, delivery, and implementation strategy under the new PMC, and assessing the experiences of Energy Trust staff, PMC staff, and various market actors during the transition; and
- › Assessing the role of the ESKs in the program; and
- › Learning how utilities coordinate marketing activities with Energy Trust and identifying opportunities for increased marketing collaboration

During the kick-off meeting, Energy Trust staff requested a “forward-looking” evaluation that would describe lessons learned during the first year of the transition and recommendations about how Energy Trust and Fluid could apply those lessons to improve the program.

As part of the evaluation, Energy Trust provided us with documents and summary data about the program. In general, the program documents and data helped us shape our interview guides, prepare samples, and informed our analysis of survey and interview data. Table 1 lists the documents and data we reviewed and a summary of what each source provided.

**Table 1: Program Documents and Data Reviewed for Evaluation**

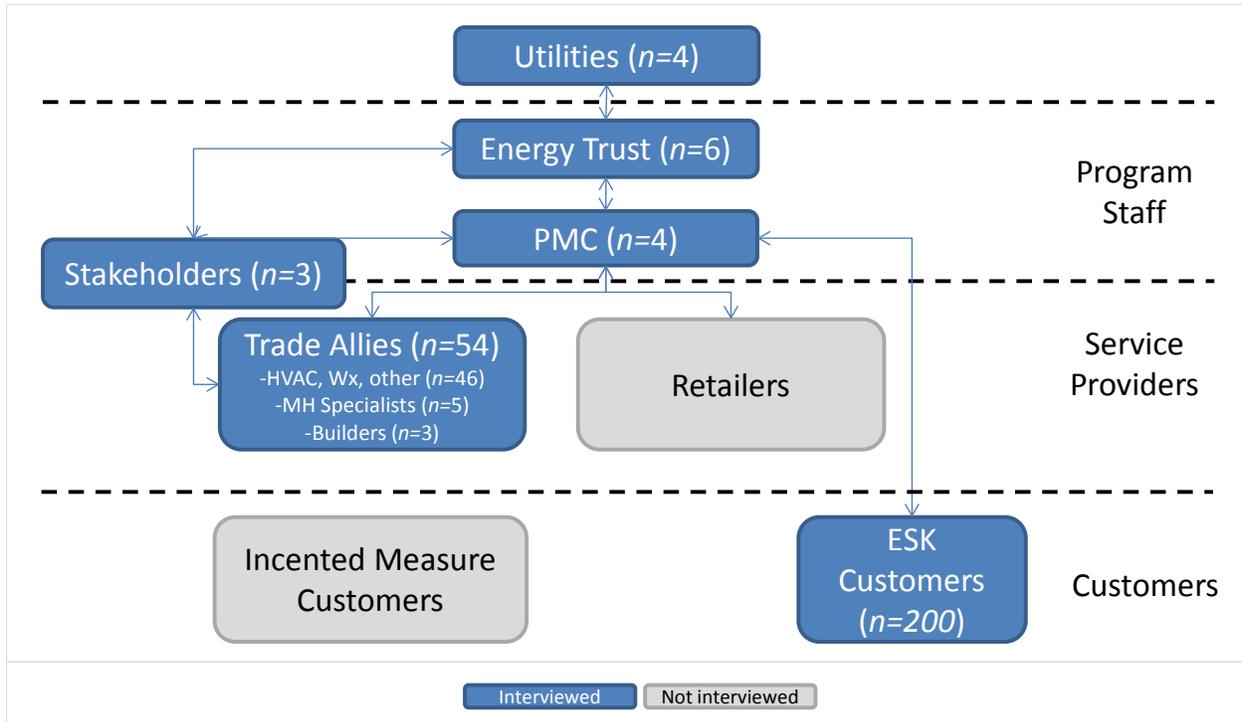
DOCUMENTS AND DATA	RATIONALE FOR REVIEWING
Past and current implementation manuals	Informed development of staff interview guide; Provided overview of EH program, including all of the specific sub-components of the program; Provided context for analysis of survey and interview results
Fact sheets about the following program components: Home Energy Rating System (HERS), Home Performance, Mobile Homes, Savings Within Reach, Residential Trade Allies, Washington Specific Program Information, insulation and water Heater Information,	
Incentive offerings	
Example marketing materials	

## Existing Homes Process Evaluation

DOCUMENTS AND DATA	RATIONALE FOR REVIEWING
Monthly and quarterly reports	Provided context in which to interpret staff interview data and allowed us to review possible trends in numbers and types of projects.
Statements of work for past and current PMC	
Summary program data including activity related to manufactured homes, home energy reviews and the New Homes program in Washington	
Program forms	Provided us with a review of what paperwork trade allies and customers see when submitting applications to Energy Trust.
Energy Saver Kit (ESK) recipient data	Informed development of ESK sample plan and call list.
Trade ally contact information and their activity rating	Informed development of trade ally sample plan and call list.
Manufactured home trade ally contact information	Informed development of MH trade ally sample plan and call list.
Builders in Southwest Washington	Informed development of builders in Southwest Washington sample plan and call list.

In addition, Research Into Action staff conducted in-depth interviews with 10 Energy Trust and PMC program staff, three representatives of stakeholder groups such as the Home Performance trade ally association; 46 HVAC, weatherization and other trade allies; five manufactured home specialists; and three builders. Additionally, Research Into Action conducted a feedback session with representatives from Portland General Electric (PGE) and another session with Pacific Power representatives. Interviews were completed with representatives from NW Natural and Cascade Natural Gas. We also conducted a survey of 200 customers who received ESKs. Figure 2 shows the various market actors we interviewed, their relationship to one another, and how they are situated in the market.

Figure 2: Diagram of Market Actors



The in-depth interviews with staff provided insights into program processes and internal communication and identified topics for us to explore in subsequent data collection activities, including telephone surveys of ESK recipients.

The trade ally surveys helped us understand how the transition to a new PMC affected their work. We included specific questions to builders about their experience with the New Homes program in Washington and to manufactured home specialists about their experience doing direct-install projects in manufactured homes.

The ESK recipient survey assessed participants’ satisfaction with the kits and provided data both on installation rates for the measures contained in the kits and on additional efficiency actions that the kits had influenced recipients to take. Table 2 provides a summary of the research topics we addressed with each group.

### 1.3. Methods

As indicated above, Research Into Action contacted five groups of people for the evaluation. Table 2 provides the type of data collection instrument we used and the data collection period for each group.

## Existing Homes Process Evaluation

**Table 2: Data Collection Dates and Types**

DATA SOURCE	DATA COLLECTION TYPE	DATES OF DATA COLLECTION
Energy Trust and PMC Staff	~60-minute in-depth interviews	Oct. 31 – Nov. 14, 2013
Service Providers	~20-minute survey	Nov. 14 – Jan 15, 2013
Utilities	~60-minute group interviews (PGE and Pacific Power) ~30-minute in-depth interview (NW Natural and Cascade Natural Gas)	Dec. 13 – Dec. 20, 2013
Stakeholder Group Representatives	~30-minute interviews	Dec. 17 – Dec. 23, 2013
All ESK Recipients	~10-minute surveys	Dec. 9 – Dec. 18, 2013

Table 3 shows the sampling approach as well as the population, sample, and number of completed interviews or surveys by group and by quota for all data sources. Specifics about our data collection methods for each group are described below.

**Table 3: Population and Sample of all Interviewed and Surveyed Populations**

DATA SOURCE	SAMPLING APPROACH	POPULATION	SAMPLE	COMPLETES
Staff	Purposive, based on program role	>10	10	10
Service Providers		587	212	54
Oregon-based	Random, most active	495	158	36
Washington-based	Random, most active	65	27	10
Builders in Washington	Convenience	10	10	3
Manuf. Homes Specialist	Convenience	17	13	5
Stakeholder Group Representatives	Purposive, based on group involvement	21	21	3
Utilities	Purposive, based on role	>13	13	13
All ESK Recipients		5,792	662	200
PGE and NW Natural		1,906	177	53
Pacific Power & NW Natural		588	54	16
Pacific Power and Cascade Natural Gas	Stratified random	147	147	46
PGE only		1,444	134	40
Pacific Power only		1,597	150	45
<b>Total</b>	n/a	n/a	n/a	280

### 1.3.1. Energy Trust and PMC Staff

Energy Trust provided us with contact information for all Energy Trust and Fluid employees with EH responsibilities. In consultation with Energy Trust evaluation staff, we selected 10 employees to interview about the EH program. The 10 employees selected were chosen based on their knowledge about various aspects of the program including:

- › Familiarity with the selection of the new PMC.
- › Familiarity with the transition period.
- › Knowledge of marketing efforts.
- › Knowledge of field operations.

With each contact person's permission, we recorded all conversations to ensure the accuracy of our notes. When appropriate, we used direct quotes from staff as examples, or to highlight a specific topic.

### 1.3.2. Service Providers

Energy Trust provided us with three lists of service allies that we used to generate our samples: A list of Oregon and Washington based trade allies, a list of builders operating in Washington state, and a list of manufactured homes specialists.

The first list consisted of 495 Oregon based trade allies and 65 Washington based trade allies. We randomly selected a sample of 158 Oregon based allies and 27 Washington based allies. Each of the contacts in our sample was called until we reached a terminal disposition or we attempted a maximum of five calls. Open-end data was coded in *MS Excel 2010* and merged with close-end data into *SPSS v 21* for analysis.

The second list of allies Energy Trust provided was of the 10 builders that have participated in the Energy Trust New Buildings program in Washington. We contacted all 10 builders and completed interviews with a builder that completed more than 80 Energy Trust projects, another builder that completed between 10 and 20 projects, and a third builder than completed less than 10 projects. Each of the contacts was called until we reached a terminal disposition or completed our quota of three interviews. Analysis was done by coding the interviews using *MS Excel 2010*.

The third list of trade allies consisted of 17 manufactured homes (MH) specialists of which 13 had complete contact information. We called all 13 trade allies to complete interviews with five MH specialists. Each of the contacts was called until we reached a terminal disposition or completed our quota of five interviews. Analysis was done by coding the interviews using *MS Excel 2010*.

### 1.3.3. Utilities

Per discussions with Energy Trust program and evaluation staff, we conducted four separate interviews with utility contacts. Our subcontractor, Jennifer Stout of MetaResource Group, conducted two in-person group interviews: one with PGE program marketing and outreach staff and Energy Trust program, marketing, and evaluation staff; and the other with Pacific Power marketing and communications staff and Energy Trust program, marketing, operations, and evaluation staff. None of the Pacific Power participants were involved in the details of program outreach. Mr. Ryan Bliss, Research Into Action's project manager for this evaluation, interviewed one key contact each at NW Natural and Cascade Natural Gas. With each contact person's permission, we recorded all conversations to ensure the accuracy of our notes.

### 1.3.4. Stakeholder Groups

In consultation with Energy Trust evaluation and program staff, we conducted two interviews with representatives of Energy Trust's Home Performance Stakeholder Group (HPSG) and one interview with a representative of Energy Trust's Trade Ally Stakeholder Group (TASG).<sup>3</sup> Based on the Energy Trust Homes Sector Project Manager's analysis, we interviewed some of the most active representatives of each of these stakeholder organizations.

### 1.3.5. Energy Saver Kit (ESK) Recipients

We surveyed 200 ESK recipients across the two electric and two gas utilities to assess ESK installation rate as well as awareness, satisfaction, and influence on other actions and to provide feedback on the Home Energy Profile.

#### 1.3.5.1. Sampling Plan

To ensure that the research produced a representative sample, we considered: 1) adequate confidence/precision at the utility and water heating fuel levels, and 2) adequate representation of the various measures in the ESKs.

Table 4 shows the population and sampling frame, summarizing the Energy Trust's database records of all unique ESK recipients (installation dates range from January to September 2013) by electric and natural gas utility.<sup>4</sup> The vast majority of these ESK recipients receive electric service from either PGE or Pacific Power and either receive gas service from NW Natural or Cascade Natural Gas or do not receive gas service at all. Fewer than 2% of the ESK recipients receive electricity from a utility other than PGE or Pacific Power. We excluded those

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<sup>3</sup> There are seven unique organizations represented by the HP group and 14 unique organizations represented by the TASG after we took out representatives from Energy Trust and Fluid.

<sup>4</sup> All records included a phone number.

respondents from the sample frame, as it would not have been cost-effective to include them in the sample.

**Table 4: Population and Sampling Frame, Energy Saver Kit Survey**

GAS UTILITY	ELECTRIC UTILITY			TOTAL	
	PGE	PACIFIC POWER	OTHER (NOT IN FRAME)	POPULATION	FRAME
NW Natural	1,906	588	95	2,589	2,494
Cascade Natural Gas	0	150	12	162	150
No Gas or Other Gas Utility	1,444	1,597	-	3,041	3,041
<b>Total</b>	<b>3,350</b>	<b>2,335</b>	<b>107</b>	<b>5,792</b>	<b>5,685</b>

Note: The shaded cells indicate ESK recipients that lie outside the sample frame.

Achieving at least 90/10 confidence and precision for each utility requires samples of 66 respondents for the two electric utilities and the larger gas utility, and a sample of 46 respondents for Cascade Natural Gas.<sup>5</sup> We allocated 46 of the total 200 sample points to Cascade Natural Gas, which also counted toward Pacific Power’s sample count, and distributed the remaining sample points among the remaining cells in proportion to each cell’s contribution to the total frame. The resulting sample plan, shown in Table 5, provides 90/10 confidence and precision for Cascade Natural Gas and exceeds that level for all other utilities (providing about 95/10 for PGE and Pacific Power).

**Table 5: Target and Final Sample, Energy Saver Kit Survey**

GAS UTILITY	ELECTRIC UTILITY		TOTAL
	PGE	PACIFIC POWER	
NW Natural	53	16	69
Cascade Natural Gas	0	46	46
No gas / other gas utilities	40	45	85
<b>Total</b>	<b>93</b>	<b>107</b>	<b>200</b>

As noted above, one sampling consideration was to achieve an adequate representation of the various measure types. Most measure types were distributed similarly across the various utilities, so stratifying on utility would provide an adequate representation of each measure type. Electric water heaters were twice as common as gas water heaters, but they were disproportionately concentrated among the less-than-half of the recipients with only electric service. As a result,

<sup>5</sup> These sample sizes are based on applying the finite population correction factor to the 90/10 sample size of 68 required for an infinite population.

about half of the total sample would have each water heater fuel type, providing for greater than 90/10 confidence/precision for each one.

We therefore stratified the population of ESK recipients according to the data presented in Table 5, and randomly drew a sample sufficient to complete the target number of surveys.

### 1.3.5.2. Survey Instrument

We developed an easy-to-understand survey instrument that would take less than ten minutes to complete by phone (Appendix G). When we began each survey, we ensured that the contact was the same person who ordered the ESK. The instrument covered the following research topics:

- › assessing the ESK installation rate (asked about all measure types received);
- › how participants learned about the ESKs;
- › satisfaction with the ESK;
- › influence of the ESK on other energy efficiency actions;
- › assessing the Home Energy Profile; and
- › demographics.

### 1.3.5.3. Data Collection

Abt SRBI implemented the survey following the sampling plan (Table 5). Abt SRBI pre-tested the instrument with 10 respondents before launching the overall survey. Abt SRBI callers made at least five attempts to reach each contact before determining a terminal disposition to counteract non-response bias. Abt SRBI made calls during weekdays and evenings, and on weekends until they met all of the stratification quotas. The total response rate was 37%. The final dispositions table is attached in Appendix H.

### 1.3.5.4. Analysis

We analyzed the completed survey data using *SPSS*. The syntax file, which is available upon request, documents all procedures employed for data cleaning, data transformation, and statistical analysis.

## 1.4. Report Structure

In the remaining sections of this report, we present results by program staff, service providers, ESK customers, and utilities; in the final section, Conclusions and Recommendations, we synthesize results across all data sources.

## 2. Energy Trust and PMC Staff Perspectives

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We interviewed six Energy Trust and four Fluid staff members about the EH program. The purpose of the interviews was to help us understand the overall program and the coordination between Fluid and Energy Trust, with a particular focus on the experiences of Energy Trust and Fluid staffs during the transition. In keeping with Energy Trust's desire for a forward-looking evaluation, staff interviews focused on identifying strategies to help the program going forward.

### 2.1. Overview of Staff Interviews

The interviewed staff members included the Energy Trust and Fluid program managers and other staff collectively familiar with all aspects of program administration, marketing, and field operations. We covered specific subjects in greater depth with interviewees whose work was most relevant to that topic. For example, we asked marketing staff more questions about program marketing, and operations staff more questions that were related to program operations.

The staff interviews provided a wealth of information about the first year of Fluid's tenure as the program's PMC. Overall, the interviews pointed to several challenges during the first year and demonstrated sometimes conflicting perspectives on key topics. However, both Energy Trust and Fluid staff adapted somewhat to each other's expectations throughout the year and, together, achieved important successes. To best capture the breadth of findings from the staff interviews, we have chosen to frame our discussion in terms of successes, challenges, and lessons learned that can guide program improvements going forward.

### 2.2. Overarching Successes

Staff identified three main overarching successes that occurred after Fluid became the PMC:

- › Development and implementation of program documentation
- › Expanded activity in Eastern Oregon
- › Provision of sophisticated analysis and innovative ideas

We describe each of these successes below.

### 2.2.1. Increasing the Usability of Program Documents

Energy Trust staff valued Fluid’s work to improve the usability of program documentation. Specifically, Energy Trust valued two elements related to documentation:

- › Fluid’s revision of the program manual made it a comprehensive and more useable document than past versions.
- › Improvements to the 42 program paper forms and development of online forms for contractors and homeowners reduced the administrative burden and costs related to paper-based forms.

According to staff, the prior program manual lacked specifics about how to implement the program. Therefore, Fluid revised the manual making it very specific by providing screen shots of how to do certain database activates and providing detailed instructions about how to approve applications.

Energy Trust contacts noted that Fluid had aligned the program’s paper and online forms to make them easier to use while still meeting Energy Trust’s data collection needs. According to one contact, moving some of the incentive application and payment processing systems online while maintaining compliance with its accounting protocols could potentially improve Energy Trust’s overall accounting procedures. Another possible benefit is that making it easier for homeowners to use the forms could potentially increase homeowner participation and, therefore, program savings.

### 2.2.2. Outreach in Rural Areas

One objective of the program under the new PMC was to increase outreach to rural areas, particularly Eastern Oregon. To achieve this goal, Fluid pursued a strategy of developing more trade allies in those areas of the state, and Energy Trust contacts noted that, “Fluid is doing a good job here.” Fluid met with representatives of Cascade Natural Gas, the gas utility that serves areas east of the Cascades, to discuss plans and strategies to increase savings in Cascade Natural Gas territory beyond the items used in the ESKs that had been the dominant savings measure in the region. Staff reported several specific actions that Fluid took to engage trade allies in rural areas, particularly:

- › Hiring outreach staff who live and concentrate their efforts in Eastern Oregon
- › Encouraging Eastern Oregon-based contractors that are active in efficiency to become trade allies
- › Hosting roundtable events in Baker City to engage trade allies based in Ontario and Boise
- › Outreach and training of trade allies to serve the Savings Within Reach (SWR) moderate-income track of Existing Homes
- › Coordination with low income agencies to support customer sorting and potential areas of program crossover

Fluid has also done extensive outreach to local governments and smaller communities to promote awareness of Energy Trust. One Fluid contact reported that Energy Trust is not widely known in Eastern Oregon so promoting the Energy Trust name is important to building credibility in the area. One way Fluid has done this is to work with mayors and public works directors to promote Energy Trust through community newsletters and continue to promote existing community-run efficiency programs, such as Weatherization Pendleton.

### 2.2.3. Fluid's Creativity and Analytical Skills

Several Energy Trust respondents valued Fluid staff's combination of analytic skill and creative energy. Specifically, Energy Trust contacts spoke of Fluid's "discipline," "very good analytical and technical skills," "innovation in technical aspects of the program," "creativity," and "dynamic program ideas." Staff highlighted three particular areas where Fluid demonstrated creativity and good analytical and technical skills:

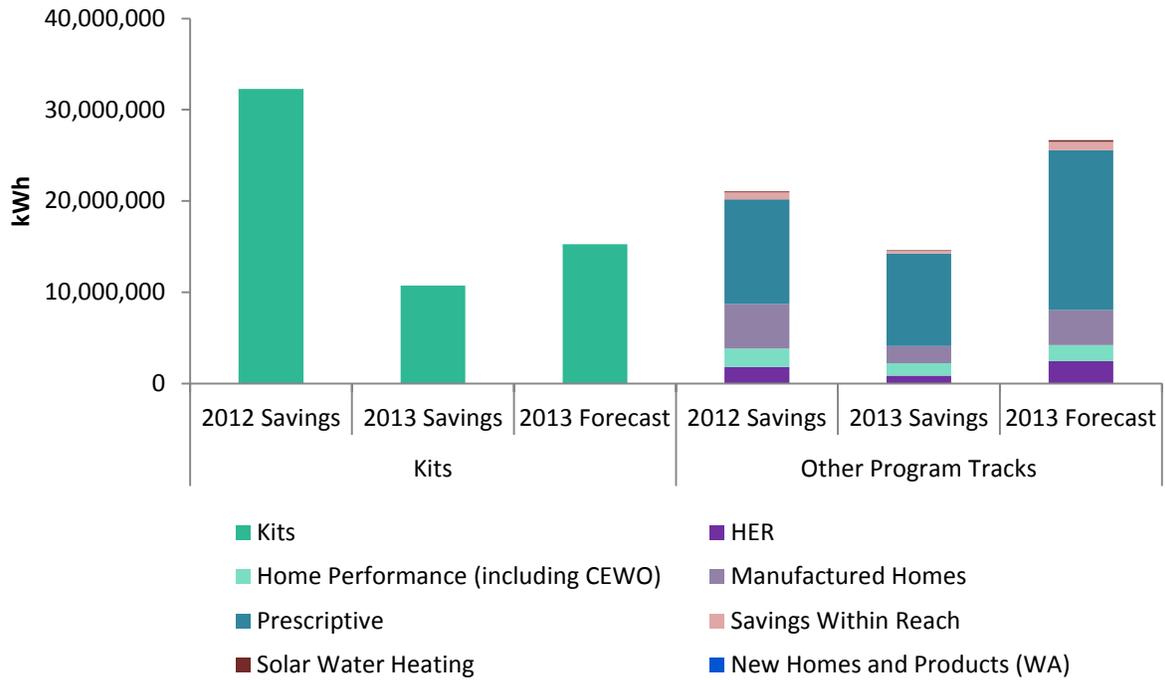
- › Plans to shift away from ESKs and focus more on having trade allies sell program services.
- › Innovative suggestions about promoting and encouraging measure early retirements.
- › Capturing accurate data and using it wisely to implement the program plan.

The biggest of the "dynamic program ideas" were the intentional shift away from ESKs and "redeveloping the trade ally experience" to put more emphasis on trade allies selling program services than has been done in the past. This shift to trade allies selling the program more would correspond to more single family track projects and resultant savings.

Note that while the shift from kits was a "dynamic" idea, the available evidence does not indicate whether or not it has been successful. Without heavy promotion of kits, the program struggled to acquire savings to meet its goals and ultimately put increased focus back on the kits at the end of 2013. It was not necessarily the shift away from kits *per se* that created an impediment to acquiring savings, but the program's inability during the first several months of the program year to field effective alternatives. Program data show that in 2013, the program acquired slightly fewer savings from the prioritize non-kit measures than in 2012, and the savings were not enough to supplant the loss of kit savings. The result of this strategy was notably fewer savings for the program compared to 2012 (see Figure 3 and Figure 4). Staff did note that it may take additional time for some of Fluid's innovations to materialize in savings, so they lowered their forecast of program savings for 2013. Even so, the program failed to meet the forecasted savings in 2013.

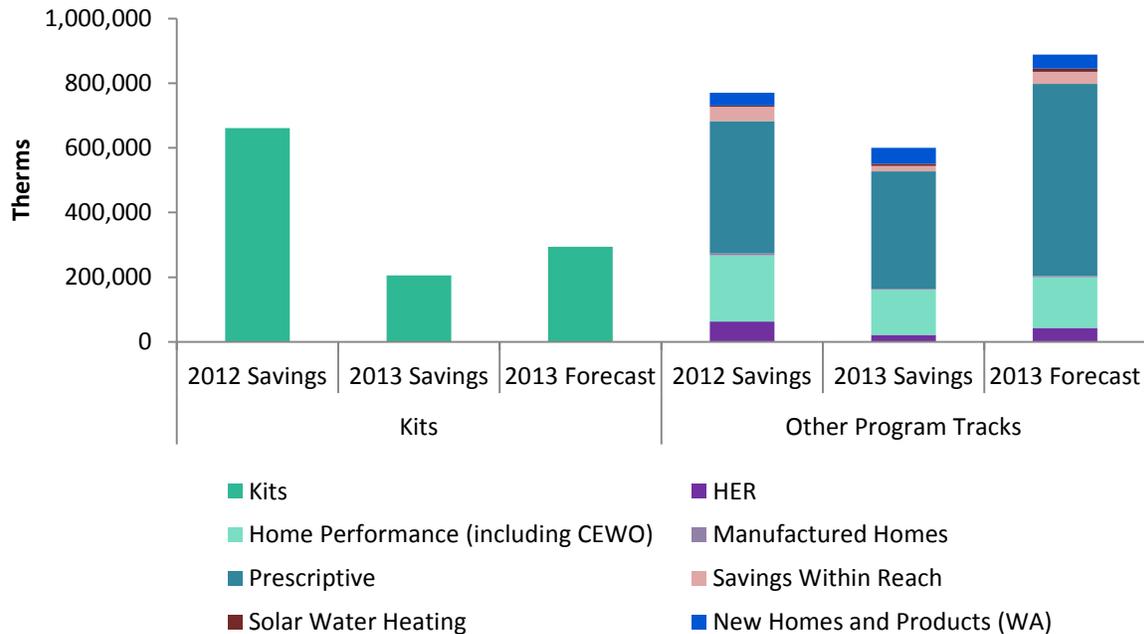
## Existing Homes Process Evaluation

**Figure 3: kWh Savings by Program Track <sup>6</sup>**



<sup>6</sup> 2013 forecast values are from the 2013 Existing Homes Annual Report submitted to Energy Trust on March 4<sup>th</sup> 2014. 2012 and 2013 values are from FastTrack data submitted to Research Into Action by Energy Trust evaluation staff.

Figure 4: Therm Savings by Program Track <sup>6</sup>



Fluid suggested that providing financing for things like a furnace replacement would enable the program to capture savings it was previously unable to capture. Currently the program does not offer incentives for furnaces, but if it offered financing that takes an inefficient furnace offline 10 years before its expected lifespan, the program could capture those 10 years of savings that a traditional incentive program does not capture.

As discussed below, the reasons for that inability to field alternatives was one of the points of disagreement between Energy Trust and Fluid staff.

One noted corollary of Fluid’s analytical skills was a greater interest than the previous PMC in using statistical analysis to drive implementation recommendations. As a result, according to one program informant, “they are better at and prioritize capturing correct data” to inform decision making about the program. Another corollary was information enhancements that Fluid made to the monthly reports submitted to Energy Trust. According to Energy Trust, the monthly reports Fluid submits are more thorough, yet “succinct,” than reports under the previous PMC and Fluid has responded well to requests for additional information to be included in these reports. For example, non-program Energy Trust staff has asked Fluid to list notable activities and year-to-date savings forecasts in the reports and Fluid has complied with these requests.

### 2.3. Challenges

In addition to the above-noted successes, Energy Trust and Fluid staff reported several challenges in the first year. In particular, we identified challenges in six main areas: 1) expectations and priorities, 2) communication and coordination between Energy Trust and Fluid, 3) Energy Trust's internal communication and coordination, 4) staffing, 5) adherence to Energy Trust processes, and 6) information technology (IT).

#### 2.3.1. Expectations and Program Priorities

Perhaps the greatest challenge Energy Trust and Fluid staff faced arose from different expectations of, and priorities for, the program. In particular, Energy Trust contacts indicated that Fluid focused on meeting savings goals and did not adequately address other Energy Trust priorities and expectations, specifically: the Washington program, several pilot initiatives, and IT testing and consulting to Energy Trust.

Energy Trust representatives reported that Fluid's attempt at leveraging Oregon strategies for use in Washington did not fully meet the needs of the Washington program. According to an Energy Trust contact, Fluid is challenged by Washington because Washington provides only gas savings, the market for weatherization measures is smaller, and additional resources are required to implement different program strategies than in Oregon. Energy Trust staff saw Washington as an opportunity for Fluid to test new ideas and strategies. According to Energy Trust contacts, it is easier to make changes in Washington than in Oregon because of the regulatory environment in Washington and the need to work with only one utility (NW Natural) in that state. While using aspects of the Oregon program may be helpful, the Washington program requires its own specific approaches, according to an Energy Trust respondent.

Another area where Fluid reportedly did not address Energy Trust priorities was in the implementation of pilots and other special initiatives. There were several pilots and initiatives that started under CSG and were not part of Fluid's program design but that Energy Trust expected Fluid to manage when it took over the program in 2013. Those pilots and initiatives were:

- › Duct Sealing Pilot
- › Customer Engagement Pilot
- › Cold Water Detergent Pilot
- › On-bill repayment for Savings Within Reach participants
- › Energy Savvy Referral Codes for trade allies
- › On-demand print portal for trade ally marketing materials

Because these pilots and initiatives were started prior to Fluid's management of the program, integrating them into its plan was necessary but, according to an Energy Trust respondent, Energy Trust and Fluid did not strategically address how to either integrate them or cease some

initiatives in a way that would not damage relationships with customers or trade allies. According to one Energy Trust contact, the initiatives may not align with Fluid's plan, but determining which ones to keep was difficult. Balancing the need to follow Fluid's plan by the need to respect the investments made in the pilots was reportedly tricky and, according to this contact, both Energy Trust and Fluid could have handled the situation better. Energy Trust could have communicated the importance of the initiatives and Fluid could have asked Energy Trust for better direction about how they saw the initiatives folding (or not) into Fluid's plan for the program.

It is possible that lack of clarity, on Fluid's part, about Energy Trust expectations contributed to some of the above issues. Although one Energy Trust staff person reported that Energy Trust's RFP spelled out the expectations for the PMC, some Fluid and Energy Trust contacts indicated that Fluid was not clear about what Energy Trust expected.

This lack of clarity extended to expectations regarding IT support. According to a Fluid staff person, Fluid "did not understand [Energy Trust's] expectations of us in terms of IT space... [things like] testing, developing, and consulting for IT [program changes]." Fluid contacts reported that Fluid staff spent more time than they anticipated helping and consulting with Energy Trust on IT issues, which took away from their ability to do work that garnered savings. Energy Trust staff reportedly saw Fluid's work on IT issues as part of its responsibility but may have been unclear how much time they expected Fluid to spend on this task.

Table 6 shows specific comments illustrating the differing perspectives we received from Energy Trust and Fluid staff about program priorities. We discuss other communication challenges in Section 2.3.2, below.

Table 6: Staff Perspectives on Program Priorities

PRIORITIES	REPRESENTATIVE ENERGY TRUST COMMENT	REPRESENTATIVE FLUID COMMENT
Initial expectations	<i>“The first 90 days of working with Fluid, everything [all the activities Energy Trust expected Fluid to do] was a curveball for Fluid”</i>	<i>“Energy Trust provided the transition plan and Fluid worked as well as we could in the confines of the transition plan that Energy Trust required. I believe that there were a number of things that were not considered – things that might have worked well for another PMC but not for the program Fluid [proposed] delivering.”</i>
Balance need to deliver savings with need to promote program, meet regulatory requirements, and deliver program equitably	<i>“There are ways that Energy Trust can serve the constituent base that aren't just [related to] savings. If the goal is to broadly serve the service territory, you can't measure success just based on savings, but also on reach and delivery.”</i>	<i>“We are pointed towards savings goals. We ask, ‘How is this going to lead to savings goals?’ When we disagree with Energy Trust is when we disagree with savings goals. There have been several legacy projects that were important to Energy Trust but we had a hard time mapping our involvement because they did not point to savings.”</i>
Adaptation/ accommodation to business processes	<i>“Fluid didn't take into consideration what it would be like to move a big ship (like Energy Trust)... . I'm not sure [Fluid] is actively working to address the issues about what is difficult about implementing [the program].”</i>	<i>“Every process with Energy Trust has extensive timelines. Lots of review has to happen... . This can slow things down.”</i>
Responsiveness to Energy Trust needs	<i>Energy Trust has “ad hoc needs that Fluid doesn't want to respond to or misses the timeline. The program executes on today's goals but tomorrow's vision. Fluid just didn't realize the needs. It's hard to make the RFP language get across how onerous the requirements might be. Maybe Fluid asks for more guidance and thinks Energy Trust doesn't give it.”</i>	<i>“When we get new requests or modifications [from Energy Trust], they are not approached [by Energy Trust] as a scope change with budget implications. It is not to say we will not adapt to changes [but] there are ways to build in those changes. Documentation, change orders....we have not negotiated changes and we should be able to.”</i>

### 2.3.2. Communication and Coordination between Energy Trust and Fluid

Energy Trust and Fluid contacts identified two main communication-related challenges, one general and one more specifically related to the approval and implementation of program marketing efforts.

The general issue was that Fluid assigned a single staff person as the sole point of contact for all program-related communication between Fluid and Energy Trust, to triage Energy Trust requests and designate other Fluid staff persons to respond. According to the Energy Trust contact, this person at Fluid already was very busy, so the process sometimes delayed critical communication related to application approval, technical analysis, or incentive processing.

More specifically, both Fluid and Energy Trust staff identified breakdowns in communication related to the approval and implementation of marketing efforts for the EH program. For example, contacts reported that Fluid struggled to meet Energy Trust’s expectations regarding

marketing and that Energy Trust's requirements, in particular not providing Fluid access to customer data that would help with targeted marketing efforts, challenged Fluid's ability to develop and launch marketing strategies in a timely manner. Several comments point to a possible breakdown in communication between the two organizations.

An Energy Trust contact noted that Energy Trust had rejected Fluid's first draft marketing plan as inadequate. However, upon reviewing Fluid's second draft plan, "It appeared that nobody [at Fluid] talked with Energy Trust to try to clarify anything" about the first draft of the marketing plan.

Lack of communication appears to have delayed Fluid's ability to implement its marketing ideas in at least two ways. First, a Fluid staff person reported having spent "hundreds of hours" searching for CSG marketing materials that Energy Trust was slow in providing and that Energy Trust never provided an adequate explanation for the delay. A Fluid contact further indicated that Energy Trust's slow process for approving marketing materials delayed implementation of Fluid's marketing ideas. On the other hand, contacts reported that Fluid was not aware of the time it would take for testing and approving marketing materials.

A final area where lack of communication created difficulties in implementing effective marketing was in Fluid's budgeting for marketing staff. Fluid contacts reported that the line-item budget allocations defined by Energy Trust for marketing aligned with CSG's practices, but not with Fluid's staffing approach to marketing. As a result, Fluid's labor costs for marketing were greater than CSG's because CSG had subcontracted more of its marketing tasks. According to Fluid contacts, this made it difficult for Fluid to deliver marketing support using its staff. An Energy Trust contact indicated that this problem arose from a misunderstanding by Fluid about how to approach its marketing. Energy Trust and Fluid worked together to address this issue late in the year, but it apparently took substantial staff resources to resolve.

It is not possible to determine from existing information the share that each organization bears in the above failures to communicate. On the one hand, Fluid clearly should have ensured that it understood Energy Trust's expectations and feedback on draft products and should have learned early on what the likely timeline would be for approving marketing materials. On the other hand, it is possible that Energy Trust's program management could have been more proactive in supporting Fluid's efforts to ensure program success.

### 2.3.3. Energy Trust Internal Communication and Coordination

We heard from Energy Trust staff that the EH program staff was prepared for the transition to a new PMC, but the non-program Energy Trust staff (including finance and IT staff) may not have received the support or notification necessary to make changes in the first year of the program under a new PMC.

One staff person reported that the finance department was somewhat reluctant to change incentive processing methods. According to this respondent, the current process for incentive processing is more onerous than needed and changes to the review process and moving more incentive applications online, steps Fluid started to take in 2013, could help make the process

less onerous. In order to take this step, several changes have to happen within non-program related Energy Trust departments. The finance department needs to be sure that the online process still meets their accounting and verification requirements and the IT department needs to build a system that can serve the needs of the program and the finance department (see Section 2.3.6. for more information on the IT department). Making these kinds of changes requires coordination and communication between program staff and non-program staff. Seemingly, this coordination and communication was insufficient or not enough time was allowed to make some of these changes.

An Energy Trust staff person indicated that the program staff may have to work with the finance staff to convince them to balance their need to follow accounting procedure best practices with operational effectiveness. For example, implementing procedures that provide 90% accuracy in payment verifications may be more cost effective than implementing practices that provide 100% accuracy.

Energy Trust staff implied that these internal communication issues could have ripple effects on the ability for the PMC to implement aspects of their program plan. For example, if the PMC is involved in improving forms and they need buy-in from program and non-program Energy Trust staff, it is important that all Energy Trust staff have similar expectations about what those forms will accomplish.

### 2.3.4. Staffing

Energy Trust and Fluid staff reported several challenges related to staffing in 2013. Below, we address those challenges as they relate to staffing levels, turnover, and the call center.

#### 2.3.4.1. Staffing Levels

A variety of comments from staff contacts converged on the point that, in the first part of the year, Fluid's staffing model stretched some staff too thin and assigned high-level staff to some tasks that lower-level staff might be able to perform. As a result, staff roles were not always clear and responsibilities were shifted as Fluid tried to adapt to the program's needs.

One contact reported that Fluid initially had put 52 FTE on the program, compared to CSG's 75 FTE, and that Fluid's staffing plan had a greater mix of higher-level staff compared to CSG's plan. Energy Trust and Fluid contacts noted that some Fluid program staff had multiple responsibilities, which sometimes made it difficult for them to complete all of their program-related tasks. In particular, one contact indicated that a member of Fluid's marketing staff "was stretched too thin" in the first part of the year and was assigned responsibilities that were not within that person's core expertise: Fluid "didn't have the right person in the spot for the details or the level of strategy and engagement that I was looking for."

On a related point, one Energy Trust contact suggested that the mix of high- and lower-level staff on Fluid's staff meant that more-experienced staff works on tasks that could be completed by a less experienced person. Consistent with this, a Fluid contact reported that several high-level PMC staff regularly worked overtime, spending normal business hours on key program tasks and

attending to additional document review and email responses later. As discussed more below, inadequate staffing also adversely affected call center performance.

Contacts reported that, as the year progressed and Fluid adapted to the program, staff became more settled in their positions and Fluid hired additional staff to relieve pressure on existing staff. At the time of the interviews, however, Energy Trust contacts still reported some dissatisfaction regarding the shifting staff roles.

### 2.3.4.2. Staff Turnover

Staff turnover at Fluid exacerbated the staffing issues identified above, complicating the implementation of certain aspects of the program. Energy Trust contacts reported having had to work with four different project leads because of staff departures or shifts at Fluid since January. Moreover, because of turnover, the current Fluid program manager has had to take on direct responsibility for the call center and program implementation in Washington, which previously had dedicated task leads. To one Energy Trust contact, it seemed like “the program manager’s... role changes week by week.” Another noted that frequent changes in management “puts pressure on the implementation staff levels,” adversely affecting communication and response times.

Fluid staff noted that staff turnover was an issue at Energy Trust also, particularly in terms of the Energy Trust IT department. One Fluid staff person noted that turnover in the IT department made it difficult for Fluid to help test and consult with Energy Trust on IT changes that affected the EH program (see section 2.3.6 for greater discussion of IT challenges).

### 2.3.4.3. Call Center Staffing

The call center has been a problem for the EH program since January because the call center has not met Energy Trust’s standards for responding to calls in a timely manner and providing customers with adequate information. Fluid addressed the call center problems by hiring and training new staff and revising the call monitoring process throughout the fall of 2013. Several contacts reported that call center issues improved in the latter half of 2013 but said there was room for additional improvement, including meeting the Service Level Agreements (SLAs) for call answer timeliness.

Fluid initially had outsourced the call center to a firm in Minnesota which was affiliated with Fluid’s parent company, CLEAResult. According to Energy Trust, the Minnesota call center did not perform to Energy Trust’s standards and Fluid transitioned call center delivery to better align this resource with Oregon program staff in June 2013. Fluid then brought the call center in-house and hired seven customer service representatives (CSR) to field calls from customers and direct more technical calls to a trade ally. Fluid monitored call quality and scored their CSRs to ensure high-quality contact with customers. By August, Fluid’s call center was meeting the SLAs they had with Energy Trust, but fell slightly short of the SLAs in September and October.

Both Energy Trust and Fluid staff indicated that Fluid had difficulties adequately staffing the call center and orienting call center staff to the EH program. One Fluid contact explained, “We did

not maintain that [SLA performance level] because of staff changes. We were down three people.”

Training of call center staff also was an issue, and sometimes this caused customers to be dissatisfied with the service. One Energy Trust contact suggested that Energy Trust itself had not been adequately involved in training call center employees and did not effectively recognize and respond to deficiencies quickly enough.

### 2.3.5. Adherence to Energy Trust Processes

Contacts also indicated differing expectations regarding the timeliness of Energy Trust’s processes. While Fluid contacts said that Energy Trust’s approval processes for marketing materials took too much time, Energy Trust staff indicated that the processes were necessary, suggesting that it was up to Fluid to accommodate to the processes and timeline. On the other hand, Energy Trust and Fluid staff agreed that the approval process for project applications and incentives was took more time than necessary, suggesting that Energy Trust staff may be open to automating more of those processes to save time and money.

### 2.3.6. Energy Trust Information Technology (IT) Issues

Several Energy Trust and Fluid staff described issues with Energy Trust’s IT infrastructure, particularly a backlog of projects in the Energy Trust IT department that delayed improving payment processing and targeted marketing. The delay of targeted marketing was a particular problem for Fluid, as that was something they were relying on to implement their plan for the program.

One Fluid staff noted that even the smallest request from IT requires an IT ticket, which may exacerbate the backlog. This contact was unclear about how the IT department prioritizes projects. Energy Trust recognized that its IT staff is resource-constrained, with a long list of projects and not enough staff to implement them. Energy Trust has considered several program improvements that require IT support, such as automating reports and streamlining payment processing to reduce Energy Trust program staff time. However, the IT department will need time to develop appropriate procedures that meet finance staff’s verification standards, such as how many people need to review and approve payments (see section 2.3.3 for more discussion of the finance department).

Fluid contacts also suggested that the backlog in Energy Trust’s IT department reduced program savings. Specifically, Fluid requested access to Energy Trust’s CRM data to use in targeted marketing. While waiting for that access, Fluid suggested using a commercial marketing tool to identify customers, but Energy Trust instructed Fluid to wait for the IT department to provide CRM access. At the time of our interviews, Fluid still was unable to access the CRM marketing campaigns tracking module or use a work-around, which a Fluid contact said reduced their ability to market the program and thus gather savings. Energy Trust staff corroborated Fluid’s problems with using the CRM for targeted marketing and stated that access to the CRM was an issue larger than just marketing. The long list of IT upgrades and changes Energy Trust is trying

to implement has slowed the development of many tools that implementers such as Fluid need to run programs.

### 2.4. Going Forward

A key aspect of this evaluation is determining what lessons can be learned from the past years' experience and how those lessons can be applied in 2014. Based on our interviews with Energy Trust and Fluid program staff we identify key elements of the program that should be maintained and elements that should be addressed going forward.

Successful program elements the program can build on include:

- › Making the program more accessible to trade allies and homeowners by streamlining forms and offering online forms.
- › Improving program awareness and delivery in rural Oregon and exploring energy saving opportunities in small towns and regional cities such as Ontario and Pendleton to help promote the Energy Trust name and build credibility in historically underserved areas.
- › Improving in-house staffing, training, and quality assurance to improve call center response times, accuracy, and follow-through.

Topics that need to be addressed include:

- › Aligning expectations between Energy Trust and Fluid regarding the importance of savings and the importance of needs such as customer service, program equity, and compliance with policies and regulations.
- › Begin targeted marketing efforts by granting the PMC access to customer data so it can use that data to drive demand for measures other than ESKs.
- › Determining appropriate staff levels and staff types and building bridges between PMC and Energy Trust staff working in similar topical areas.
- › Determining the IT projects that are the biggest priorities for the program and communicating those priorities to both IT staff and program staff.

## 3. Perspectives on Service Delivery

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To learn about how market actors experienced the transition and how they interact with the Energy Trust and their PMC, we sought feedback from four distinct groups of actors:

1) representatives from Energy Trust’s stakeholder groups; 2) trade allies such as HVAC and weatherization contractors, 3) manufactured home specialists; and 4) Washington-based builders participating in the New Homes program.

Results show that those that deliver Energy Trust services identified both positive and negative outcomes resulting from the transition. Stakeholders reported that coordination and communication could be improved between trade allies and the program staff. Trade ally respondents generally offered more positive comments about the transition, citing general satisfaction with the program and an improvement in the forms and response time to questions compared to the previous PMC. Manufactured home (MH) specialist trade allies stated that the MH market for Energy Trust services appeared to be getting saturated; however program data appears to indicate that there are still opportunities to serve manufactured homes. Builders in Washington appear to be one step removed from the program compared to other service providers because they rely on their verifiers for Energy Trust program information.

We present more detailed results from our surveys and interviews with each of these groups here.

### 3.1. Stakeholder Group Representatives Perspective

Stakeholder groups are organized by Energy Trust and consist of representatives from trade allies, Bonneville Power Administration (BPA), state agencies, and non-profit associations. Energy Trust has two stakeholder groups relevant to Existing Homes, the TASG and the HPSG. Energy Trust’s purpose in hosting stakeholder group meetings is to facilitate the exchange of communication among these groups and seek feedback about program elements on a periodic basis. Representatives of these stakeholder groups provide a “high level” perspective about how the program is being experienced in the field. These representatives can offer unique insights because they represent market perspective and function as intermediaries between program staff and the broader marketplace.

The Energy Trust Homes Sector Project Manager identified the most active representatives of the TASG and the HPSG for us to interview. We completed interviews with three of these active members. We asked about their role in the stakeholder groups and their reasons for joining the groups, how they share information learned in the meetings with their constituency, their experience working with the new PMC, and what benefits they see in participating in the group.

Respondents said they were participating in the groups to facilitate communication between the industry and Energy Trust, support trade ally involvement in Energy Trust programs, and to learn about and provide feedback on program changes. They reported varying levels of information-sharing with their constituency, with one mentioning regular emails to constituents as well as

presentations at trade shows and conferences, while one reported sharing information only with internal staff and the third contact did not specify how or with whom information is shared.

The stakeholder responses suggest there is some room for improvement with the program, with two of the respondents reporting they are not currently receiving the services they would like from the program. According to these respondents, communication between the program and the stakeholders has deteriorated with the new PMC. These respondents particularly disliked the lack of opportunities to provide feedback over the last year. One in particular suggested that Fluid does not seek the opinion of others in the field, but said that “anyone that’s been in the industry for longer than they have [has] expertise that’s really valuable.”

The same two respondents also noted that the program is not adequately supporting trade allies. One was dissatisfied with the program’s emphasis on supporting large trade allies at the expense of smaller firms and another was unhappy with the level of communication and coordination provided by the PMC. In the past, this ally reported that program staff did a better job of soliciting feedback from stakeholders and trade allies.

The remaining respondent indicated that the PMC transition did not affect the positive working relationship the respondent has with the program and they are receiving what they need from the program; the respondent did not suggest any changes to the stakeholder group.

Table 7 summarizes stakeholder responses across six key interview topics.

**Table 7: Stakeholder Summary**

TOPIC	STAKEHOLDER 1	STAKEHOLDER 2	STAKEHOLDER 3
Reason for participating in stakeholder group	Facilitate good communication between industry and Energy Trust, Learn how to get more trade allies into Energy Trust programs	Network with other stakeholders, Provide feedback on program changes, Receive program updates	Have direct line of communication with program, Receive program updates, Provide feedback on program changes
Influence of representatives on their constituents	Provide reg. emails to constituents, present at trade shows and conferences	Share stakeholder group information with internal staff	Not specified
Types of communication with program staff	Stakeholder meetings, emails, phone, face-to-face (Would like to have a single point of contact at Fluid like they had w/ CSG)	Stakeholder meetings, emails, phone, face-to-face	Stakeholder meetings, emails, phone, but not face-to-face much
Perspectives on transition to new PMC	Momentum gained with CSG has been lost, less collaboration between program and stakeholders now, less capacity to build industry relationships now	Less open communication now, Energy Trust delegated more work to Fluid over last year	Noticed change in PMC, but still a positive and collaborative relationship
Getting what is needed from program	No. Fluid focused on large trade allies doing lots of jobs, also needs to focus on smaller trade allies.	No. Need to improve collaboration and communication between stakeholders and program.	Yes.
What could be improved about stakeholder groups	Facilitate more stakeholder feedback during meetings.	Improve home owner referrals between trade allies and Fluid, and increase number of regular meetings	Not specified

## 3.2. Trade Allies Perspectives

Trade allies interact with customers and are uniquely positioned to provide feedback about how well the EH program’s delivery of incented measures is functioning. This section provides feedback from active trade allies that do work under the EH program.

### 3.2.1. Purpose of Trade Ally Research

For this evaluation, Energy Trust was particularly interested in learning about how the transition to the new PMC in 2013 affected trade allies’ program experience. Additionally, Energy Trust was interested in how program experience differs between Oregon and Washington trade allies. We interviewed 46 Energy Trust trade allies about their experience with the EH program. Thirty six allies were located in Oregon and 10 were located in Washington. Of the 46, 38 said they

worked primarily in Oregon; the other eight worked primarily in Washington.<sup>7</sup> Throughout this section, we highlight responses from the Washington trade allies when applicable. We designed the interview guide to address the following six research questions:

- › Did trade allies note any differences in the ability to keep informed of program activities, submit applications, and get questions answered during the transition period? If so, what were they?
- › Has the transition resulted in any changes to program processes that trade allies see as either positive or negative? If so, what?
- › Has the transition had any positive or negative effects on the range of services that trade allies are able to deliver to their customers?
- › Do trade allies see themselves as the “face” of the program? Are there tools or resources they need from Energy Trust to be the “face” of the program?
- › What program requirements in Washington differ from those in Oregon?
- › *For Washington Trade Allies Only:* Are trade allies able to bundle Energy Trust high-efficiency furnace incentives with those of NW Natural programs?

### 3.2.2. Trade Ally Characteristics

All interviewed trade allies were deemed active by Energy Trust as they were designated as two or three star allies in Energy Trust’s database. Approximately half of interviewed trade allies reported being owners or executive officers at their firm. Nearly all reported being involved with Energy Trust program work. Respondents’ firms had been an Energy Trust trade ally between one and 11 years, with two-thirds having been trade allies for five or more years. The most common services provided were HVAC and building shell services (72% and 37%, respectively). Table 8 provides a summary of trade ally characteristics.

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<sup>7</sup> We classified trade allies as working primarily in Washington if they reported over half of their work completed in a year being in Washington.

## Existing Homes Process Evaluation

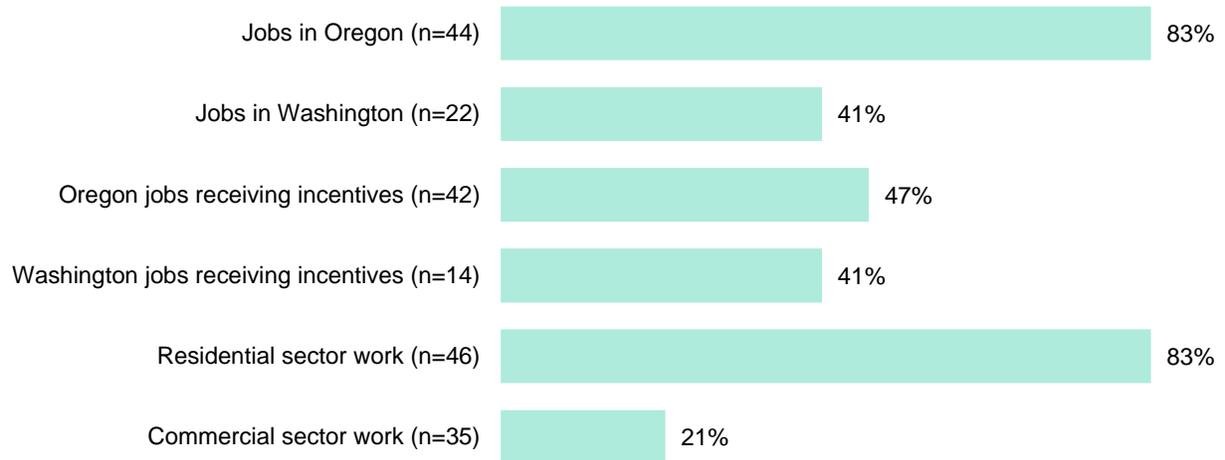
**Table 8: Trade Ally Characteristics**

<b>TRADE ALLY TITLE (n=46)</b>	<b>COUNT</b>	<b>PERCENT</b>
Owner/ Executive Officer	21	46%
Admin staff (including office manager)	10	22%
Sales person	6	13%
Manager	4	9%
Other (including two installers/project coordinators)	5	11%
<b>TRADE ALLY ROLE (n=46; MULTIPLE RESPONSES ALLOWED)</b>	<b>COUNT</b>	<b>PERCENT</b>
Energy Trust program work	39	85%
Sales and administrative	13	28%
Project management	10	22%
Everything	4	9%
<b>NUMBER OF YEARS BEING A TRADE ALLY (n=46)</b>	<b>COUNT</b>	<b>PERCENT</b>
10 or more years	14	30%
Five to nine years	17	37%
One to four years	12	26%
Don't know	3	7%
<b>SERVICES PROVIDED (n=46; MULTIPLE RESPONSES ALLOWED)</b>	<b>COUNT</b>	<b>PERCENT</b>
HVAC	33	72%
Building shell	17	37%
Energy Assessment/ Audit	4	9%
Other*	6	13%
<b>NUMBER OF EMPLOYEES (n=46)</b>	<b>COUNT</b>	<b>PERCENT</b>
One to four	11	24%
Five to nine	8	17%
10 to 20	17	37%
Over 20	12	26%

\* Includes plumbing (three mentions), solar electric or thermal (two mentions), and pool heating (one mention).

Trade Allies reported having the majority of their jobs completed within the past year being in Oregon and primarily within the residential sector. As Figure 5 shows, of the 44 respondents that do jobs in Oregon, on average, 83% of their jobs are in Oregon and 83% are in the residential sector. On average, approximately half (47%) of trade allies' residential projects completed in Oregon received Energy Trust incentives.

**Figure 5: Average Percentage of...**



### 3.2.3. Findings

Interviews with trade allies provided insight into the effects of the transition to the new PMC. Overall, trade allies largely regarded any changes since the transition in 2013 as positive ones. Additionally, most trade allies report promoting Energy Trust incentives with little assistance from Energy Trust or the PMC. We organized this section around the six primary research questions mentioned above.

### 3.2.4. Changes Associated With PMC Transition

Two-thirds of trade allies reported noticing changes to the program since the beginning of 2013, of which two-thirds were considered positive. The three most commonly mentioned changes were changes to application forms, response time to questions, and application processing. Specifically, trade allies mentioned shorter, easier to fill out application forms (11 mentions), and faster application processing times (five mentions) as positive changes they have noticed. Six trade allies reported noticing improvements in the frequency or quality of information provided by Energy Trust, including the frequency of program emails and information. Table 9 provides a summary of changes mentioned by trade allies.

**Table 9: Changes to the Existing Homes Program Mentioned by Trade Allies (n=46; Multiple Responses Allowed)**

CHANGES	CHANGE MENTIONED		# POSITIVE OR NEGATIVE		
	Count	Percent	Positive	Negative	Not specified
Any change mentioned	31	67%	24*	11*	5
Application forms	21	46%	15	3	3
Response time to questions	9	20%	5	3	1
Application processing	8	17%	4	3	1
The frequency or quality of information provided	6	13%	6	0	0
Processing of incentive checks	6	13%	2	3	1
Trainings offered	4	9%	2	1	1
Clarity of responses to questions	4	9%	3	1	0
Quality assurance inspections or verifications	4	9%	2	1	1
Interactions with customers	3	7%	2	1	0
Claiming Business Development funds	1	2%	0	0	1
Other changes	5	11%	1	4	0
No changes	15	33%	--	--	--

\* Some respondents reported both positive and negative changes. Therefore, the sum of positive and negatives in a given row may exceed the total number of trade allies identifying changes.

Although more than half of trade allies indicated these changes have been positive, 11 trade allies did note negative aspects to these changes. Examples of negative changes mentioned by trade allies included: slower processing of incentive checks (three mentions), application paperwork getting worse (three mention), and longer application processing times (three mentions). More than one respondent noted no other negative change.

Of the eight trade allies who conduct the majority of their business in Washington, only two said they noticed any program changes. Both were positive: improvements to the frequency or quality of information provided and to application forms.

Overall, trade allies reported that program changes had had only minor to moderate effects on their or their customers’ program satisfaction or to services they provide (Table 10). The greatest effect was on trade allies’ program satisfaction: just under half reported an effect, with increased satisfaction outnumbering decreased satisfaction three to one. Of the trade allies who reported increased satisfaction, all but two were among the trade allies that reported the positive changes identified in Table 10.

**Table 10: Reported Effects of Existing Homes Program Changes (n=46; Multiple Responses Allowed)**

EFFECTS	ANY EFFECT		# POSITIVE OR NEGATIVE		
	Count	Percent	Positive	Negative	Unknown
Trade ally (TA) satisfaction with program	21	46%	15	5	1
Customer satisfaction	8	17%	3	2	3
Ability to market the program	4	9%	3	1	0
Number of projects completed	2	4%	1	1	0
Number of projects that received incentives	2	4%	2	0	0
Trade Ally involvement with the QA process	1	2%	1	0	0
Other effects	2	4%	0	1	1
No effect	21	46%	--	--	--

Those trade allies that mentioned negative effects to their satisfaction reported having issues with applications (2 mentions) and that their calls and emails have gone unanswered (1 mention).

Changes to the EH program had little effect on trade ally services. Only six respondents reported any changes in the past year to services they offer residential customers. Of those six respondents, four said those changes were influenced by program changes. Those changes were working more closely with Clean Energy Works Oregon, adding heat pump experts in response to Energy Trust's heat pump incentive<sup>8</sup>, adding solar water heaters, and no longer doing duct and air sealing. Changes to services, not influenced by changes to the EH program included adding Home Performance, insulation, and weatherization services.

### 3.2.5. Trade Ally Satisfaction with Energy Trust

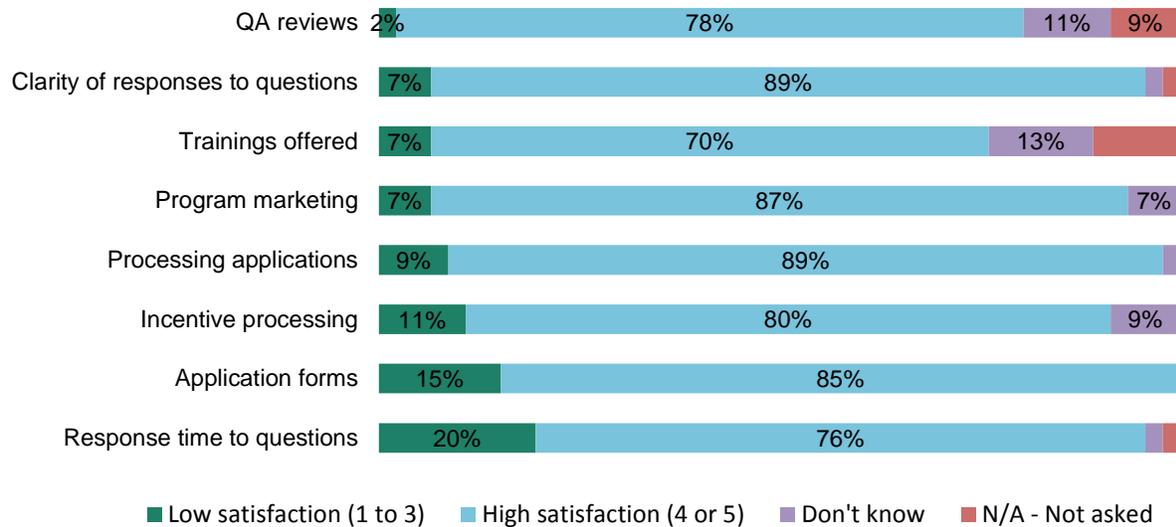
Overall, trade allies reported high satisfaction over the last six months with their program interactions. Consistent with the above (Section 3.2.4), trade allies were most likely to report low satisfaction with response time to questions and application forms (Figure 6).<sup>9</sup> Reasons for dissatisfaction with application forms were their length (three mentions) and issues related to getting the online application forms to work (two mentions)<sup>10</sup>. We found no meaningful differences in program satisfaction between Oregon and Washington trade allies.

<sup>8</sup> It was not clear from the respondent's comment whether the reference was to ducted or ductless heat pumps.

<sup>9</sup> Trade allies were asked to rate their satisfaction on a scale of "1" meaning "not at all satisfied" to "5" meaning "very satisfied". During analysis responses of "1" to "3" were combined to form a "low satisfaction" category. Similarly, responses of "4" or "5" were combined to form a "high satisfaction" category.

<sup>10</sup> The respondents did not specify what did not work regarding the online applications.

**Figure 6: Trade Ally Satisfaction with Program Elements (n=46)**



### 3.2.6. Trade Ally Program Participation

Most interviewees reported involvement in Energy Trust-sponsored events. Two-thirds reported attending at least one Roundtable, training, or other sponsored activity in 2013 (Table 11). Roundtable meetings were the most common. Of the 19 who attended Roundtables, two-thirds (13) reported their Roundtable participation had stayed the same since January 2013, while four reported an increase and two reported a decrease in participation – suggesting little impact of the PMC transition. Findings from previous Energy Trust evaluations show nearly identical levels of participation in Energy Trust activities.<sup>11</sup> Level of activity was unrelated to trade allies’ program satisfaction or to promotion of incentives.

**Table 11: Energy Trust Activities Attended in 2013 (n=46; Multiple Responses Allowed)**

ACTIVITIES ATTENDED IN 2013	COUNT	PERCENT
Roundtable meetings	19	41%
Trainings	11	24%
Other Energy Trust sponsored events	5	11%
No activities	17	37%

Note: Other events included webinars, Energy Trust introduction to Washington, and annual Builders Conference.

<sup>11</sup> Energy Trust 2013 Trade Ally Survey Final Report, September 2013. Strategic Research Associates. This evaluation reported that 41% of all trade allies participated in a Roundtable. They identified participation in specific types of training (In-person, webinars, etc.) and results show that between 21 and 27% reported participating in a training event.

### 3.2.7. Trade Ally Promotion of Energy Trust Incentives

Overall, most trade allies reported regularly leveraging Energy Trust incentives to sell their services to potential customers. Nearly all trade allies indicated that they inform potential customers about incentives, and three-quarters reported including Energy Trust incentives on bid documents (Table 12). Among trade allies who work primarily in Washington, the only reported methods of promoting Energy Trust incentives were informing potential customers that their projects may qualify and including incentives on bid documents.

**Table 12: Ways Trade Allies use Energy Trust Incentives to Promote and Sell Services (n=46; Multiple Responses Allowed)**

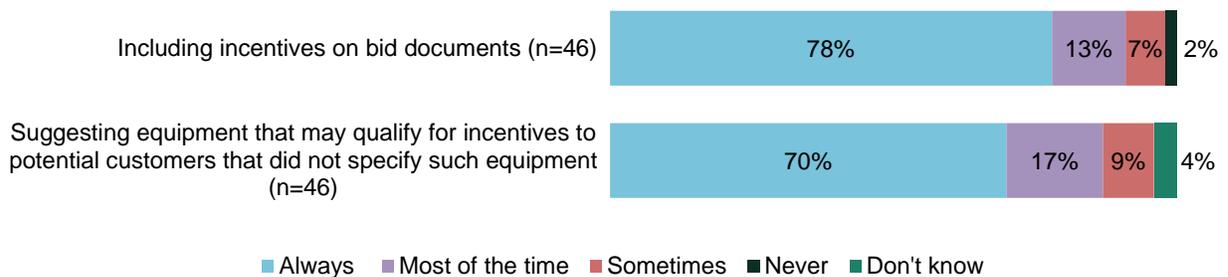
PROMOTIONAL ACTIVITIES	COUNT	PERCENT
Inform potential customers that projects may qualify for incentives	43	93%
Include incentives on bid documents	35	76%
Include Energy Trust in brochures and other printed materials	7	15%
Mention Energy Trust incentives in radio or TV advertisements	1	2%
Direct customers to website <sup>a</sup>	1	2%
Other responses <sup>b</sup>	1	4%

<sup>a</sup> It was not clear from respondent whether they were directing people to Energy Trust site or their company's site.

<sup>b</sup> One respondent did not identify specific promotional activities, but said that Energy Trust incentives help sell more equipment and that customers bring up Energy Trust.

When asked how frequently they promote Energy Trust incentives or suggest incented products to customers, most trade allies reported “always” doing so (**Error! Reference source not found.** Figure 7).

**Figure 7: Frequency of Promoting Energy Trust Incentives by Various Means**



Nearly three-quarters (72%) of the 46 respondents reported using their own marketing and promotional materials to support Energy Trust’s Existing Homes program. They most frequently accomplish this by using the Energy Trust logo or link on their firm’s website (46% of respondents). In addition, 33% of respondents said they use the Energy Trust logo in printed materials – this includes five of the seven who said they include information about Energy Trust in their printed materials (see Table 12)<sup>12</sup>. Most trade allies do not appear to require additional tools or resources beyond the Energy Trust logo or website link to promote Energy Trust incentives. Two-thirds reported they do not use marketing materials provided by Energy Trust, and only four reported using only Energy Trust materials.

Additionally, one-third of trade allies (14 of 46) reported using Energy Trust’s Business Development Funds, 13 of whom reported using funds for marketing advertisements and materials and two reported using it for their firm’s website development (one reported both). Seven trade allies (15%) reported not being aware of Energy Trust’s Business Development funds.

### 3.2.8. Trade Ally Experience with High-Efficiency Furnace Incentives

An objective of this research was to determine trade allies’ ability to bundle Energy Trust high-efficiency furnace incentives with those of NW Natural’s programs. Of 22 trade allies who reported performing work in Washington, about two-fifths (nine respondents) reported helping their customers to receive incentives from the NW Natural gas furnace incentive program. Of those nine, four reported doing paperwork and bundling Energy Trust and NW Natural incentives, four reported completing paperwork without mentioning bundling to us, and one said they present Energy Trust and NW Natural incentives separately to customers.

### 3.2.9. Program Differences between Oregon and Washington

Of the 20 respondents who reported doing work in both Oregon and Washington, 12 said they had received Energy Trust incentives on at least one Washington project. We asked those respondents what program differences they had experienced between the two states. Other than different incentive levels and eligible measures, only one respondent noted any differences, reporting that the program representative for Washington is faster than the Oregon representative at responding to their needs.

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<sup>12</sup> The responses shown in Table 12 came from a “select all that apply” type question that listed various ways respondents might use Energy Trust incentives to promote their own services. The current paragraph represents coded responses from an open-ended questions asking respondents how they used their own marketing materials to support Energy Trust.

### 3.3. Manufactured Homes Trade Allies Perspectives

Manufactured home trade allies are positioned to be able to provide feedback about how the manufactured component of the EH program is operating in the marketplace. We identified 17 trade allies that specialize in delivering services to manufactured homes of which 13 had accurate contact information. We called all 13 allies and interviewed our quota of five. In addition to asking about recent program changes and their effects and about their satisfaction with the program, we asked these respondents several questions relating to the manufactured home market. The purpose of the latter was to provide information on the market penetration of directly installed measures and to learn what Energy Trust can do to continue to serve manufactured homes.

#### 3.3.1. Description of Manufactured Home Respondents

The five allies we interviewed had been part of the Trade Ally Network from three to nine years, and had from five to 25 employees. Most (85% to 100%) of their business was in Oregon, and most (75% to 100%) of their work was in the residential sector. Their percentage of Oregon projects that received Energy Trust incentives varied from 35% to 100%. Their service areas covered the Portland and Salem metro areas, Southern Oregon, the South Willamette Valley, and the Columbia Gorge – two respondents serve Portland metro, and one each serve all other areas. All five respondents regularly provide duct and/or air sealing, three provide insulation services, two provide HVAC services, and two provide plumbing services to their manufactured/mobile home customers.

#### 3.3.2. Experience with the Transition and Program

Our questions about program changes with the PMC transition and program satisfaction generated limited comment and the comments we did receive were spread over a variety of topics. The most common topic on which respondents commented was communication from the program, but positive and negative comments were about equally likely. Table 13 summarizes the responses.

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**Table 13: Respondent Comments about Program Experience since the Transition**

TOPIC	POSITIVE COMMENTS		NEGATIVE COMMENTS	
	# Respondents	Comments	# Respondents	Comments
Communication	3	<p>Communication is more frequent, PMC values feedback</p> <p>Responses have been clearer under new PMC</p> <p>More frequently receiving notifications about training</p>	3	<p>Less communication received compared to prior PMC</p> <p>Takes more time to get response to question</p> <p>No longer able to direct dial specific people about questions</p> <p>Inconsistent responses from different staff about same issue</p>
Application forms	2	<p>Application is shorter and easier to use</p> <p>New form layout is good. Online applications are an improvement</p>	2	<p>New form shows how much trade ally gets paid, which undermines trade ally with customer</p> <p>The verbiage can be difficult to understand, specifically related to blower door tests</p>
Application and incentive processing	0	n/a	2	<p>Takes more time than before to process application</p> <p>One project has taken 8-12 weeks to get paid</p>
QA inspections	2	<p>Number of inspections increased (2 mentions)</p> <p>Inspections appear more thorough (1 mention)</p>	0	n/a
Other	0	n/a	1	Invoice and incentive check rarely match due to ISM pricing changes

Only one respondent reported that program changes affected their business: the increased number of QA inspections and slower responses from PMC staff increased the amount of time it takes him to review and respond to QA reports he receives from the program. The respondent nevertheless was satisfied with the QA reviews. None of these respondents reported making any changes to their firm in the past year as a result of the Energy Trust program or for any other reason.

### 3.3.3. Market Saturation

A key research question we investigated was how much room exists in the manufactured homes market for additional Energy Trust services and how Energy Trust could design the program to continue serving the manufactured homes market. In addition to asking trade allies that serve the

manufactured homes sector about market saturation, we examined Energy Trust’s recent market penetration by calculating the number of Energy Trust projects done in manufactured homes, from January 2012 through August 2013, as a percentage of all manufactured homes in Energy Trust territory as determined by the U.S. Census.<sup>13</sup> We found that the two sources of data were not in complete agreement.

### 3.3.4. Trade Ally Reports on Market Saturation

Results of our interviews suggest that many areas of the state may be saturated with the services Energy Trust and other organizations, such as community action agencies, currently provide, but there may be room in specific areas of the state for additional Energy Trust services.

Table 14 shows that respondents indicated generally high to complete market saturation in Portland metro, the Willamette Valley, and Southern Oregon, although the two respondents serving the Portland area disagreed about the level of saturation. The respondents serving the Salem metro area and Columbia Gorge indicated low saturation in those areas, although the latter is served by a community agency. These two areas thus may benefit from additional program promotion efforts.

**Table 14: Market Saturation of Energy Trust MH Services by Respondent Location**

RESPONDENT'S SERVICE AREA	NUMBER OF RESPONDENTS SERVING AREA	ESTIMATE OF ELIGIBLE MH'S SERVICED BY ENERGY TRUST	EE SERVICES PROVIDED BY OTHER ORGANIZATIONS, CONTRIBUTING TO SATURATION
Portland Metro	2	Almost all (1) / 35% to 40% (1)	Yes (1) / None (1)
Salem Metro*	1	15%	None noted
Columbia Gorge	1	Almost none	Yes
Willamette Valley*	1	Almost all	Yes
Southern Oregon	1	Almost all	Yes

\* Although Salem is within the Willamette Valley, we have separated it in this table because the Salem respondent was based in Portland, but did work as far south as Salem, while the Willamette Valley respondent is based in Eugene and works as far south as Roseburg, so they do not have overlapping areas.

Three of the five allies reported that the market saturation has reduced the number of projects they complete in manufactured homes. One respondent noted that his work in manufactured homes has been primarily CFLs and aerators, while another reported that the lower number of projects was somewhat offset by completing more comprehensive and thus higher-dollar projects.

<sup>13</sup> Identifying the age of manufactured homes might also help hone the analysis of what homes are eligible for the program. However, that data was not readily available.

Although interviewees considered most areas of the state saturated with current products and services, they identified some unmet needs that might suggest additional services or measures that could be added to the Energy Trust program. One respondent each suggested adding program support for ductless mini-split heat pumps, exhaust fans, windows, and cross-promoting other energy retrofit programs for manufactured home residents.

### 3.3.5. Census Data and Market Saturation

Energy Trust supplied us with program data showing the total number of measures installed (28,831) between January 2012 and August 2013. Additionally, program data shows that the program served 14,560 homes since program inception in 2003 of which 4,789 homes were treated between January 2012 and August 2013. We calculated market saturation for each Energy Trust region by dividing the number of treated manufactured homes by the census count of manufactured homes in each region.

When we examined Energy-Trust-served manufactured homes as a percentage of all Oregon manufactured homes, we found that 16% of Energy Trust's Oregon territory has been served by Energy Trust's manufactured homes specialists since program inception. By taking the number of manufactured homes served by Energy Trust in each region by the number of manufactured homes in each region and dividing, we determined that central Oregon had the highest market saturation and Eastern Oregon had the lowest saturation. (Table 15).

Table 15: Energy Trust Recent Penetration in the Manufactured Homes Sector

ENERGY TRUST REGION (REGION NUMBER)	COUNT OF MANUFACTURED HOMES IN REGION (CENSUS) <sup>1</sup>	ESTIMATED NUMBER OF MANUFACTURED HOMES SERVED BY ENERGY TRUST	ESTIMATED MARKET SATURATION
Central (8)	1,755	1,058	60%
Mid-Willamette (4)	8,643	2,778	32%
Southern (6)	23,320	4,986	21%
Portland Metro (3)	20,216	3,774	19%
Southern Willamette (5)	8,871	775	9%
Klamath Basin (9)	6,758	424	6%
North Coast (1)	4,537	248	5%
Columbia Basin (7)	2,049	91	4%
South Coast (2)	6,453	272	4%
Northeast (10)	6,376	133	2%
Eastern (11)	2,922	21	1%
TOTAL	91,900	14,560	16%

1 U.S. Census Bureau (2014, January 22) Units in Structure, Table B25024. 2007-2011 American Community Survey, 5-year Estimates. [http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_11\\_5YR\\_B25024&prodType=table](http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_11_5YR_B25024&prodType=table). Using geographic information systems software, we took all census tracts in the state with manufactured homes and overlaid the Energy Trust territory. We then clipped all the census tracts in Energy Trust territory and summed the number of manufactured homes in each census tract in each of Energy Trust's regions. This provided the number of manufactured homes in each of Energy Trust regions. We calculated market saturation by dividing the number of homes served by Energy Trust in each region by the number of manufactured homes in each region.

In comparing the above analysis with the trade ally interview findings, several things should be noted. First, the above analysis reflects only Energy Trust activity since January 2012. Cumulative penetration over, say, a five-year period likely will be higher, although it still likely would not exceed 20% to 25%. Second, these results do not reflect the work done by other organizations that may be delivering similar services. More detail on the assistance that other organizations provide would be useful in developing an accurate assessment of the saturation level of energy efficiency in manufactured homes.

As a final note, the Census data we used did not include the age of the manufactured homes in each of these regions. Assuming older homes would benefit from Energy Trust's program more than newer homes, identifying the age of homes by region could indicate areas of the state that would benefit more (or less) from Energy Trust services.

### 3.4. Builder Perspectives

Builders operating in Southwest Washington provide a unique perspective on the relationship between the New Homes program in Washington and the customers who purchase new homes. This section provides information about how builders interact with the New Homes program, the benefits they see in participating, and their satisfaction with the program.

### 3.4.1. Background

In addition to becoming the PMC for the Existing Homes program, Fluid was awarded the contract to be the PMC of the New Homes program in Washington starting in January of 2013. We completed interviews with builders in Washington as part of our evaluation of the transition to a new PMC.

The New Homes program supports efforts to build beyond code and aims to improve the energy efficiency of new homes in Southwest Washington served by NW Natural. Builder trade allies operating in this region are eligible to receive incentives for installing one of three energy-efficient upgrades in newly built homes in NW Natural's service territory. Builders are eligible...

- › ...for a **\$200 cash incentive** for installing a tankless gas hot water heater (must meet or exceed 0.82 EF) in a newly built home OR
- › ...for a **\$150 cash incentive** for installing a tank gas hot water heater (must meet or exceed 0.67 EF) in a newly built home OR
- › ...for a **\$600 cash incentive** on gas-heated ENERGY STAR® certified homes.

We conducted these interviews to learn...

- › ...if the transition affected their work with the program
- › ...how builders were aware of the program and program changes
- › ...about builders' interactions with Energy Trust and the PMC
- › ...about the builders' experience with energy efficiency and efficiency programs
- › ...what builders would like to see changed about the program, if anything

Results of these interviews are summarized below.

### 3.4.2. Description of Sample

According to Energy Trust, ten builders completed 252 homes that qualified for incentives in 2012 and 2013. Of those 252 homes, two builders completed about 80% (204) of all qualifying homes.

We completed interviews with three builders and Table 16 provides an overview of each respondent.

**Table 16: Summary of Respondents**

CHARACTERISTIC	BUILDER 1	BUILDER 2	BUILDER 3
Respondent Role	Superintendent	Purchasing Manager	Owner
Number of homes built	Between 10 and 20	At least 80	Less than 10
Aware of transition	No	No	No
Primary source of information about program	Verifier	Verifier	Verifier
% other builders' awareness of Energy Trust	<50%	Very few	<50%
Participation in efficiency programs	Energy Star Homes NW	Works with Earth Advantage, Washington Built Green, Energy Star Homes NW, Planet Clark	Energy Star Homes NW

### 3.4.3. Awareness of Program

Respondents did not indicate awareness of the transition so they had no apparent suggestions, criticisms, or observations specifically about the transition. We did learn that builders appear to be somewhat removed from working directly with Energy Trust or the PMC which could explain their lack of awareness about the transition. According to all three respondents, they receive the majority of their information about the program through their Energy Star verifier. In addition to receiving information from his verifier, one builder reported receiving emails from Energy Trust and attended roundtables but the dominant source of information came from their verifier.

### 3.4.4. Perspectives on Efficiency

Builder participants seem to prioritize the marketability of energy efficiency home components, with only some consideration towards incentives. For example, one participant described how customer preferences are often more important than incentives:

*“Really, you can offer incentives all day long, but if the customer doesn’t want it, more efficient stuff isn’t going to be used, unless that’s just the equipment you’re installing by default, but then you wouldn’t need to do incentives.”*

Another builder participant explained that energy efficiency upgrades can be a powerful selling point:

*“Most of our customers come from realtors, and in our multiple listings there is a line in there for energy efficiency upgrades. We have all kinds of stuff listed on that line. Most of the people I talk to are looking for something with an energy efficiency factor involved.”*

Builder participants used Energy Trust initiatives as part of a broader business strategy to build energy efficient homes, such as 100% Energy Star construction. Energy efficient components

that qualify for Energy Trust initiatives are one of many energy efficiency components used and marketed by the builder participants, and seem to play a minor role compared to the builders' entire business strategies.

### 3.4.5. Possible Program Improvements

Overall, respondents reported wanting more of a focus on action from Energy Trust in terms of paperwork processing speed and creating more demand for energy efficient homes, and less of a focus on providing information to the participating builders.

Communications from Energy Trust may be too long and too complex. The respondent who receives Energy Trust emails expressed dissatisfaction with the length and complexity of the emails they received, saying that he wanted more “nuts and bolts” communication and if they wanted more details he would ask for them or go on the website. The same participant would like to see some of the initiatives offered in Oregon, also offered in Washington but he did not provide specifics about what initiatives he would like to see. Much of the communication he receives is not pertinent to him because he does not operate in Oregon.

Participating builders would also like to have help from Energy Trust in creating demand and educating potential home owners on the value of energy efficiency. One of the respondents reported that “advertising money would be helpful, and probably educating the public a little more on [the program]” and another respondent stated, “if we can get the buyers to ask for [efficiency], that would be the primary goal. Then the demand would be there and we could do what we do best.”

Another respondent seemed to confound Energy Trust with Energy Star, suggesting a lack of detailed familiarity with the program.

## 4. Utility Perspective

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Energy Trust collaborates with its funding utilities on marketing and delivery of energy efficiency programs. The Research Into Action team conducted interviews with utility staff and Energy Trust staff to understand and document how utilities work with Energy Trust on marketing and program implementation, and to help identify any opportunities for increased collaboration. The interviews covered both residential and commercial activities; only those comments and findings applicable to residential activities are reported here.

Overall, contacts reported that program marketing and delivery are going well, the organizations work together effectively, and the transition to the new PMC had been smooth. Contacts said customers generally are clear about program offerings, whom to contact, and how to access the offerings. The utilities appreciate the opportunity to provide feedback on program marketing materials.

Following a brief description of the interview approach and methods, we present a summary of findings on several key topics.

### 4.1. Methodology

The evaluation team conducted four separate interviews with utility contacts (Table 17). At the request of the two electric utilities (PGE and Pacific Power), the team conducted in-person group interviews with the utility program marketing and, in the case of PGE, outreach staffs. Energy Trust sector leads and program management, marketing, and evaluation staff also attended these meetings. Research Into Action's subcontractor, Jennifer Stout of MetaResource Group, led the group interviews. Ryan Bliss, Research Into Action's project manager for this evaluation, interviewed one key contact each at NW Natural and Cascade Natural Gas. All of these interviews occurred in December 2013. With each contact person's permission, we recorded all conversations to ensure the accuracy of our notes.

**Table 17: Interview Attendees**

PORTLAND GENERAL ELECTRIC (PGE)	PACIFIC POWER
<p><b>PGE</b>                      Manager, Customer Technical Services                      Commercial Energy Efficiency and Residential Heat Pump Marketing                      Product Line Manager                      Residential Outreach and Technical Specialist                      Commercial Outreach Specialist and Team Lead                      Manager, Customer Mass Programs</p> <p><b>Energy Trust</b>                      Residential Sector Lead                      Residential Sector Market Manager                      Program Managers (Existing Homes, Existing Buildings)                      Marketing Manager, Commercial and Residential                      Evaluation Sr. Project Manager (observing)</p>	<p><b>Pacific Power</b>                      Administrator SB 838 Funding                      Residential Communications                      Commercial Communications                      Communications Specialist                      Manager, Customer and Communications</p> <p><b>Energy Trust</b>                      Residential Sector Market Manager                      Program Managers (Existing Homes, Existing Buildings)                      Marketing Manager, Commercial and Residential                      Evaluation Sr. Project Manager (observing)                      Director of Operations (observing)</p>
CASCADE NATURAL GAS	NW NATURAL
<p>Conservation Supervisor</p>	<p>Manager, Consumer Information and Internet Services</p>

Interviews covered participants’ roles; utility marketing and outreach activities; the nature of coordination and collaboration with Energy Trust on marketing, outreach, and delivery (including the types and frequency of staff meetings); how utilities direct customers to Energy Trust programs; program and service branding; and consistency of program information across marketing and outreach channels.

We have included the interview guides used in Appendix D and E.

In general, interviewees provided more detailed information on collaboration and coordination in marketing and outreach than in program delivery, reflecting the greater level of coordination activity in those areas.

## 4.2. General Structure of Coordination and Collaboration

Utility and Energy Trust staff collaboratively develop a marketing plan at the end of each year for the following year, and then meet approximately three times per year to discuss progress. Attendees of those quarterly meetings discuss activities from the previous quarter, targeting and messaging issues, and information on metrics. As needed, they also meet by phone or email, which allows the utilities and Energy Trust to adapt the program to meet energy savings goals.

Contacts generally agreed that the planning and communication efforts to market Energy Trust programs were working well. Energy Trust staff appreciated the utilities’ responsiveness and assistance in marketing events and efforts to target customers, including meeting occasional quick-turnaround deadlines. Utility contacts also appreciated Energy Trust’s efforts. For

example, the Cascade Natural Gas contact appreciated the fact that Energy Trust staff met with Cascade Natural Gas staff in-person at Energy Trust's three district offices, which provides Cascade Natural Gas the opportunity to see how the district offices work and to discuss current program offerings and coordinate messaging in-person. A PGE representative appreciated the ability to access Energy Trust's customer data because it provides the utility with a more complete picture of how the marketing done by the utility connects to an actual efficiency project.

Some utility contacts said they would like to receive meeting agendas sooner, be able to provide more input into the agendas, and have more time for the utility staff input. These contacts indicated that the meetings often covered basic reporting on topics which had already been handled in informal discussions that occurred in the period between the quarterly meetings. These contacts thought the quarterly meetings therefore could be an opportunity to go beyond basics to more in-depth discussion. PGE contacts expressed interest in having the PMC participate in joint discussions about how to best market new program offerings, once the initial offering has been determined.

### 4.3. Factors that Enhance Coordination and Collaboration

All interviews provided important insights, although contacts provided varying levels of detail on what made coordination and collaboration work.

The group interview for PGE/Energy Trust yielded the greatest level of detail. PGE interviewees included both program outreach and marketing staff. Both PGE and Energy Trust interviewees reported they collaborate directly and regularly to identify and implement solutions that increase savings and customer service. This team reported they have developed solid trust and effective cross-team communication and developed formal and informal mechanisms to coordinate data sharing, marketing, and program delivery.

They expressed a common understanding that their goal is providing excellent customer service to achieve energy efficiency. Participants also noted that both sides work hard to communicate outside of the planned meetings to address program-related topics. They expressed that their collaboration over time continues to deepen.

PGE/Energy Trust participants also mentioned several factors that have helped foster this positive working relationship:

- › A new PGE quality assurance (QA) staff person for the residential heat pump program, funded by SB 838. This QA person has helped improve program designs and strategies, and increased savings by ensuring that incented heat pumps are installed and functioning properly.
- › PGE's in-depth understanding of Energy Trust's programs, which assists PGE staff in directing customers to the most appropriate options.

- › Access to Energy Trust program participation data – a new development established as part of the new data sharing agreement – which allows PGE to better target its program and service marketing activities.
- › Use of in-house staff to conduct program outreach.

In particular, access to Energy Trust program data helps PGE better target the customers most likely to participate in a given Energy Trust program. The data also help PGE adjust its marketing plan to meet changing Energy Trust needs – e.g., savings gaps in one or more Energy Trust programs.

The Pacific Power contacts were all from marketing; Pacific Power contracts its outreach staff. They expressed overall satisfaction with collaborative program marketing efforts as well. The primary tools mentioned for marketing collaboration were the marketing plan that Energy Trust and Pacific Power jointly develop at the end of each year for the following year, three meetings during the year to check in on progress, and check-in by phone and email. Interviewees' comments indicated good rapport between the two organizations. Both Energy Trust and Pacific Power contacts said the flexibility of the marketing plan and ability to check in as needed allows for necessary changes and mid-course corrections. Energy Trust added that Pacific Power staff has been responsive and helpful with marketing events and customer targeting. Regarding targeting, contacts said a new goal for 2014 will be to provide consumption data for Energy Trust to help better target customers with substantial savings potential.

The contacts for the two gas utilities also provided some details on the nature of their collaboration with Energy Trust. Both described working with Energy Trust on the copy for bill inserts and, in the case of NW Natural, a monthly newsletter to its customers that includes an Energy Trust-selected topic, such as insulation. Both gas utility contacts noted that they do not have an outside sales force to promote their energy efficiency programs. Therefore, in addition to bill inserts, their websites, and their own call centers, they rely on dealers and contractors to promote the Energy Trust incentives. In fact, as a very small utility, Cascade Natural Gas relies on Energy Trust's TV, radio, and print advertising for general energy efficiency outreach.

### 4.4. Directing Customers to Energy Trust Programs

All utility contacts reported that they actively direct their customers to Energy Trust for program access and that this arrangement was working well. In particular, Energy Trust staff indicated that PGE staff understands Energy Trust's programs well and that PGE's outreach staff effectively direct projects to Energy Trust. Pacific Power and Energy Trust contacts indicated a shared understanding that Pacific Power's key role is to provide access for Energy Trust to customers; the contacts emphasized that customers' recognition of the Pacific Power name and logo, and their relationships with Pacific Power field reps, are important in fostering participation in Energy Trust's programs. NW Natural and Cascade Natural Gas contacts reported that their call center staff and company websites direct interested customers to the Energy Trust program website and phone number. At both gas utilities, call center staff transfer customers directly to Energy Trust's call center; in addition, Cascade Natural Gas representatives

forward customer emails to Energy Trust, and/or provide customers with Energy Trust’s phone number and website. This has been fairly consistent since 2012.

### 4.5. Branding

Utility contacts offered diverse comments on program branding. Despite that diversity, the utilities and Energy Trust appear to be deliberate and consistent in how they manage branding; as a result, customers know how to get information on programs and participate in them. Contacts generally indicated that Energy Trust solicits utility input on its marketing materials and uses the utility brand to reach customers, although Energy Trust ultimately controls the content. Multiple contacts described branding as following a model of “brought to you by Energy Trust because you’re a *utility* customer” or “brought to you by your *utility* through Energy Trust.” Participants in the PGE interview noted that promotions with major PGE customer impact will use PGE’s brand design, but they did not define “major impact.”

Interviewees provided varying feedback on branding strategies in general, and on the degree of joint utility/Energy Trust co-branding. The Pacific Power contact reported that the utility adds the Energy Trust logo to utility marketing materials. On the other hand, a contact from one of the gas utilities said that utility does not include the Energy Trust logo on about 70% of its marketing material and that “a lot of Energy Trust marketing/advertising is all-Energy Trust” and does not identify the utilities that provide the service. In addition, some utility contacts noted that some entities that help market programs, such as Clean Energy Works Oregon (CEWO), do not always acknowledge Energy Trust (and the utilities it serves) as collaborators.

One point that came out of the PGE interview was that trade allies should focus less on educating the customers about the details of where the incentives come from and more just on the measures and their benefits that the joint PGE/Energy Trust relationship make available.

One contact indicated that although Energy Trust, the PMC, program trade allies, and utility staff collaboratively market the program, the utility’s residential customers – particularly, those in “more rural territories” – are not always clear that an entity other than the utility offers the rebate programs.

### 4.6. Consistency of Program Information Across Channels

Generally, utility contacts said their customers received clear and consistent information about the program offerings and how to access them. Energy Trust provides draft copy to the utilities on each topic, and Energy Trust and utility staff revise the copy as necessary; the lead organization for the service that is being provided drives the message. Participants in the PGE interview in particular described efforts to use the same program messages in Energy Trust’s and PGE’s respective branding. The NW Natural contact suggested one improvement: an in-person planning meeting with Energy Trust staff to map out what the two organizations want to communicate.

## 4.7. Challenges and Opportunities

Some contacts indicated some challenges and opportunities for improving coordination and collaboration between Energy Trust and utilities. Specific suggestions included the following:

- › Contacts at one utility said that if Energy Trust could involve them earlier in the planning process before making detailed strategic and tactical decisions about how to meet goals, the utility staff could bring valuable ideas to the discussion. The utility contacts described a particular incident involving marketing a heat pump pilot program; they believe they could have offered good input but Energy Trust did not provide them an opportunity. These same contacts also suggested involving the PMCs in marketing discussions, as they would likely have good ideas because of their ground-level perspective.
- › Several Energy Trust contacts emphasized the importance of the utilities providing as much advance notice as possible about significant adjustments to planned program marketing or outreach activities. Energy Trust said this is particularly important because PMC/Energy Trust contracts are complex and difficult to change.
- › Contacts from one utility said that if Energy Trust could distribute the agendas for the regular quarterly meetings sooner, utility staff would be able to suggest additional topics reflecting their particular perspective and issues, and request more time for these. These contacts also wanted meetings to focus more on in-depth discussion than routine reporting. They suggested that Energy Trust alert them in advance if the meeting is intended to be purely informational, so the utility staff do not spend time preparing collaborative input that will not affect program activities.
- › Several suggestions related to the use and training of trade allies.
  - Help trade allies to better articulate to customers the benefits provided by the relationship between Energy Trust and the utilities;
  - Provide more training to trade allies on selling efficiency to customers;
  - Work with trade allies to understand the value to their businesses of doing QA;
  - Align Energy Trust’s trade ally qualifications and installation requirements with a utility’s more stringent requirements;
  - Have incentives paid to trade allies and require them to pass incentives directly to the customer (through invoices), to motivate the allies to complete and submit incentive forms in a timely fashion;
  - Provide rural customers with greater access to program-knowledgeable trade allies.

Contacts from just one utility made all three comments and suggestions related to rural customers. However, these comments may represent the views of other utilities as well. One contact commented appreciatively on Energy Trust’s effort to increase participation in rural areas, but noted, “some more rural territories are not getting as much of the messaging as in Portland. The messaging delivery is not as evenly spread out as it could be.” Another suggested

that Energy Trust consider providing a share of program mass marketing funds to utilities as cooperative funds.

Finally, one utility contact indicated an interest in working with Energy Trust to develop approaches to increase weatherization among low-income customers, many of whom cannot afford to install the measures Energy Trust incentivizes. Specifically, the contact was interested in developing targeted weatherization messaging for low-income customers and a weatherization kit to promote in big-box stores.

### 4.8. Conclusion

On balance, planning and communication efforts to market Energy Trust programs – including the joint development of annual marketing plans and holding both regular meetings and unscheduled check-ins – appear to be working well. Comments from interviews suggest that collaboration and coordination works best when there is direct and regular communication, including regular communication outside of planned meetings. Other factors that may foster collaboration and coordination include developing an in-depth understanding of Energy Trust programs and utility use of Energy Trust program data, where applicable, to help target utility marketing of programs and services.

The utilities and Energy Trust appear to be deliberate and consistent in how they manage branding, providing customers clarity on how to get information on and participate in programs.

Coordination could be improved through greater and earlier information sharing between Energy Trust and the utilities in program planning and by greater collaboration in the use and training of trade allies.

## 5. Energy Saver Kit Recipients Survey

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Energy Trust delivered over 48,000 ESKs in 2012 to households that requested them; kits included a fixed number of CFLs, showerheads and faucet aerators based on the utility service and water heating fuel of the home. Since the beginning of 2013, the program has moved to a “Build Your Own Kit” offering, which provides a variable number of each kit component, depending on the recipient’s home characteristics, such as the number of bathrooms, and desire for the devices.<sup>14</sup> Compared to the standard kits delivered in 2012 and prior years, the new “Build Your Own Kit” offering was hypothesized to have higher installation rates for each device.

We surveyed 200 recipients of the Energy Saver Kit (ESK) in Oregon by phone about their experiences with the kits and the program. The primary purposes of this survey were to assess the installation rates of the measures in the kits and to gather information on the kits’ influence on subsequent efficiency actions. A secondary purpose of the survey was to provide information on respondents’ feedback regarding program marketing and outreach, ordering and receiving the kits, interactions with program staff, and use of the Home Energy Profile tool.

In this section, we present the findings from the surveys. We examined key responses by appropriate housing and demographic characteristics (electric and gas utility, home ownership status, building type, year built, home size, respondent’s age, income, education, and race). In the body of this report, we indicate only statistically significant differences we observed; if we have not identified such statistically significant differences, readers should assume that we found no such differences.

### 5.1. Respondent Information

This next section provides an overview of respondent’s demographic and housing characteristics.

#### 5.1.1. Electric and Natural Gas Utility

The distribution of the final sample exactly matched our sampling plan (Table 5). Slightly fewer than half of the respondents were PGE customers (47%) and over half of the respondents were Pacific Power customers (53%). The largest percentage of respondents did not have natural gas service or were customers of other gas utilities (43%); about one-third were NW Natural customers (35%), and the rest were Cascade Natural Gas customers (23%).

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<sup>14</sup> Customers can select fewer of particular items; they cannot request more than the offered number of each item.

### 5.1.2. Home-Ownership and Home Characteristics

Energy Trust collected home ownership data (owner or renter) and information on home characteristics (building type, year built, and building size) from customers when they ordered the kit. Table 18 summarizes this information for the sample. Two-thirds of the survey respondents were home owners and the rest were renters. Three quarters live in single-family detached homes, with the others living in multi-family buildings. The distribution of home age's ranges widely, with about one-quarter built before 1960. While respondents' homes varied from fewer than 1,000 square feet to more than 3,000 square feet, almost 80% of the homes were between 1,000 and 2,000 square feet.

**Table 18: Home Ownership**

CHARACTERISTIC	COUNT	PERCENT
<b>HOME OWNERSHIP *</b>		
Owner	131	67%
Renter	64	33%
<b>Total</b>	<b>195</b>	<b>100%</b>
<b>BUILDING TYPE</b>		
Single-family detached	147	74%
Duplex, triplex, or fourplex	28	14%
Apartment with 5 units or more	25	12%
<b>Total</b>	<b>200</b>	<b>100%</b>
<b>YEAR BUILT</b>		
Before 1940	28	14%
1940 – 1959	29	14%
1960 – 1979	49	25%
1980 – 1999	41	21%
2000 or after	53	27%
<b>Total</b>	<b>200</b>	<b>100%</b>
<b>HOME SIZE</b>		
Less than 1,000 square feet	28	14%
1,000 to less than 2,000 square feet	116	58%
2,000 to less than 3,000 square feet	41	21%
3,000 square feet or more	15	7%
<b>Total</b>	<b>200</b>	<b>100%</b>

\* We could not confirm five respondents' home ownership status.

### 5.1.3. Respondent Characteristics

The survey collected information on respondents' age, income, education level, and race or ethnicity. Results are summarized in Table 19. The distribution of respondents by age ranged widely, with about one-fifth under the age of 30 and about one-third at least 50 years old. More than half of the respondents who received an ESK were members of lower-income households, but a significant portion of more-affluent households also received ESKs.

**Table 19: Respondent Characteristics\***

CHARACTERISTIC	COUNT	PERCENT
<b>AGE</b>		
29 years old or younger	39	21%
30 – 39 years old	38	20%
40 – 49 years old	31	16%
50 – 59 years old	36	19%
60 – 69 years old	25	13%
70 years old or older	21	11%
<b>Total</b>	<b>189</b>	<b>100%</b>
<b>TOTAL HOUSEHOLD INCOME</b>		
Under \$30,000	55	31%
\$30,000 to under \$50,000	38	21%
\$50,000 to under \$70,000	35	20%
\$70,000 to under \$110,000	34	19%
\$110,000 or above	16	9%
<b>Total</b>	<b>178</b>	<b>100%</b>
<b>EDUCATION</b>		
High school or less	37	20%
Associate degree / trade school	58	31%
College degree	66	35%
Graduate / professional or more	27	14%
<b>Total</b>	<b>188</b>	<b>100%</b>
<b>RACE OR ETHNICITY</b>		
White	162	89%
Asian	9	5%
Hispanic	6	3%
Other	6	3%
<b>Total</b>	<b>183</b>	<b>100%</b>

\* Counts and percentages exclude respondents that did not provide the requested information: 11 respondents refused to provide year of birth; 22 did not provide household income; 12 did not provide educational achievement; and 17 did not provide race or ethnicity.

ESK recipients reported a full range of educational achievement, from less than a high school diploma to post-graduate degrees. About one-third each reported a four-year college degree or an associate's degree. One-fifth said they had completed high school or had stopped their education before completing high school.

An overwhelming majority of the ESK recipients identified themselves as white. Asian was the largest non-white race group, followed by Hispanic. Other races included Native Americans and African Americans.

## 5.2. Installation Rates

Energy Trust provided a variable number and mix of ESK measures depending on the information the recipients provided about their home characteristics such as the number of bathrooms and the number of specific light bulb types used. The kit included the following measures:

- › Low flow bath faucet aerator (up to two items)
- › Low flow kitchen faucet aerator (up to two items)
- › High performance showerhead (up to two items) along with Teflon tape for installation
- › A-lamp light bulb (up to two items)
- › Standard compact fluorescent light bulb (up to six items)
- › Vanity globe light bulb (up to two items)
- › Reflector light bulb (up to two items)
- › Candelabra light bulb (up to two items)

For each measure recipients received, we asked 1) how many items they had installed, 2) whether they plan to install all items received in the next few months if not all items had been installed, and 3) how many of the new kit items they installed had been removed. Using responses to these questions, we estimated three different installation rates for each ESK measure.

- › **Item installation:** Percent of all items installed (indicating impacts of the ESK measures on savings or realization rate). This was calculated as the net number of all items reported installed by all recipients (the number installed minus the number later removed) divided by the total number sent to all recipients.
- › **Recipient response:** Percent of respondents that installed at least one item (indicating the percentage of recipients who are taking action, which may also indicate whether the program should investigate ways to increase installation rates). This was calculated as the number of respondents that reported installing at least one item divided by the total number of respondents (coding any that later removed all items of a given type that they installed as non-action-taker).

- › **Recipient response or plan:** Percent of recipients that installed or plan to install all items in the next few months (indicating the maximum potential percent of recipients who will complete installation of all ESK items they received). This was calculated as the number of respondents that reported installing or planning to install all items divided by the total number of respondents (coding any that later removed any item of a given type that they installed as a recipient who does not plan to install all items).

Table 20 shows the three installation rates of each measure by utility. Since water measures could be fueled by electricity or gas, for the analysis we assigned respondents to a gas utility if they reported gas water heating and assigned them to an electric utility if they reported electric water heating. For electric measures, we assigned all respondents to one of the two electric utilities.

We tested the statistical significance of the differences in the various installation rates between the utilities. Regardless of our significant findings, utility-specific rates should be consulted for the best estimate for each utility.

Overall patterns of significant differences in item installation rates as well as recipients response and response/plan rates between utilities are unclear. However, item installation rates of some water measures (bath aerators and kitchen aerators) among gas utility customers appear to be consistently lower than those among customers of electric utilities. Recipients' "response or plan" rates for some lighting measures (A-lamp, vanity globe, and candelabra) are significantly lower among PGE customers than Pacific Power customers.

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Table 20: Installation Rates by Gas and Electric Utility

ITEM INSTALLATION RATES		PGE		PACIFIC POWER		NW NATURAL		CASCADE NATURAL GAS		TOTAL	
		Percent	Valid n	Percent	Valid n	Percent	Valid n	Percent	Valid n	Percent	Valid n
Item Installation <sup>2</sup>	Bath aerators <sup>1</sup>	70%	91	68%	92	50%	80	58%	50	63%	313
	Kitchen aerators <sup>1</sup>	49%	72	63%	72	34%	62	38%	34	46%	240
	Showerheads	68%	80	56%	88	58%	77	68%	50	62%	295
	A-lamp bulbs <sup>1</sup>	68%	117	81%	117	-	-	-	-	75%	234
	CFL bulbs	72%	414	75%	488	-	-	-	-	73%	902
	Globe bulbs	58%	114	69%	128	-	-	-	-	64%	242
	Reflector bulbs	58%	89	58%	93	-	-	-	-	57%	182
	Candelabra bulbs	40%	78	42%	89	-	-	-	-	41%	167

RECIPIENTS RESPONSE AND PLAN RATES		PGE		PACIFIC POWER		NW NATURAL		CASCADE NATURAL GAS		TOTAL	
		Percent	Valid n	Percent	Valid n	Percent	Valid n	Percent	Valid n	Percent	Valid n
Recipients Response	Bath aerators <sup>1</sup>	82%	51	76%	59	63%	43	71%	24	74%	177
	Kitchen aerators	63%	49	64%	56	48%	44	54%	24	58%	173
	Showerheads	82%	49	66%	58	71%	42	85%	26	74%	175
	A-lamp bulbs	83%	59	93%	60	-	-	-	-	88%	119
	CFL bulbs	90%	89	89%	101	-	-	-	-	90%	190
	Globe bulbs	64%	59	77%	68	-	-	-	-	71%	127
	Reflector bulbs	70%	47	63%	54	-	-	-	-	66%	101
	Candelabra bulbs	45%	38	51%	45	-	-	-	-	48%	83

## Existing Homes Process Evaluation

RECIPIENTS RESPONSE AND PLAN RATES		PGE		PACIFIC POWER		NW NATURAL		CASCADE NATURAL GAS		TOTAL	
		Percent	Valid n	Percent	Valid n	Percent	Valid n	Percent	Valid n	Percent	Valid n
Recipients Response or Plan	Bath aerators	92%	51	93%	59	88%	43	83%	24	90%	177
	Kitchen aerators	74%	49	80%	56	68%	44	71%	24	74%	173
	Showerheads	92%	50	81%	58	83%	42	89%	26	86%	176
	A-lamp bulbs <sup>1</sup>	88%	59	98%	60	-	-	-	-	93%	119
	CFL bulbs	93%	90	98%	102	-	-	-	-	96%	192
	Globe bulbs <sup>1</sup>	78%	59	91%	69	-	-	-	-	85%	128
	Reflector bulbs	85%	47	91%	54	-	-	-	-	88%	101
	Candelabra bulbs <sup>1</sup>	58%	38	84%	45	-	-	-	-	72%	83

1 Statistically significant difference among utilities ( $p < .05$ ), by Chi-Square.

2 Item installation rates' valid n is the total number of measure items shipped. For recipient's response and response/plan rates' valid n is the total number of valid respondents.

Results suggest that item installation rates varied considerably across measures. Among the water measures, the installation rates of bath aerators and showerheads were similar, while kitchen aerators had the lowest installation rate. Among lighting measures, the item installation rate of A-lamp bulbs was the highest and that of candelabra bulbs was the lowest. For some items, such as kitchen aerators, reflector bulbs, and candelabra bulbs, over a third of the respondents had not taken actions to install the measures, suggesting that follow-up contacts with ESK recipients might increase savings. The maximum potential percent of recipients who will complete installing all of the items suggests that, for some measures (kitchen aerators and candelabra bulbs), over a quarter of recipients will not install all of the items they receive.

In addition, home owners' reported installation rates for some measures, particularly kitchen aerators (Item Installation rate: 45% vs. 67%) and bath aerators (Item Installation rate: 59% vs. 73%), were significantly lower than the rates reported by renters.

### 5.3. Reasons for Not Installing Measures

For each item, if the respondent indicated that they had not yet installed all of the items they had received and were not planning to install them in a few months, we asked them to explain why they would not install each item (Table 21). The most common reasons across all the measures were that the products either did not fit the existing equipment or system or did not work as intended. This was particularly true for measures such as candelabra bulbs (55%), vanity globe bulbs (41%), and bath and kitchen aerators (38%).

Some recipients of water measures reported they received more items than they needed. Most of those who had not yet installed their new showerhead said they just had not had time to install it;<sup>15</sup> this may indicate that recipients perceive showerhead installation to be more time-consuming than other measures. Almost half of the CFL recipients who had not installed the energy-efficient bulbs said they had not done so because their existing, less-efficient bulb was still working.

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<sup>15</sup> Using the recognized date in the Energy Trust database and the date of each survey, we found the average time elapsed was over 6 months (193 days) with the minimum time elapsed being over 2 months (75 days) and the longest being over 8 months (260 days).

Table 21: Reasons for Not Installing – Water Measures

REASONS	WATER MEASURES			LIGHTING MEASURES				
	Bath aerator (n=37)	Kitchen aerator (n=58)	Shower-heads (n=44)	A-lamp (n=7)	CFL (n=15)	Globe (n=17)	Reflect-or (n=10)	Candelabra (n=20)
Didn't fit or didn't work as intended	38%	38%	11%	29%	20%	41%	30%	55%
Haven't had time to install it	8%	3%	34%	0%	0%	0%	10%	0%
Got more items than needed	14%	19%	11%	0%	0%	0%	0%	5%
Current one is still working	14%	14%	11%	14%	47%	12%	0%	5%
Don't have the items any longer	5%	7%	4%	0%	7%	6%	0%	10%
Don't know how or difficult to install it	3%	2%	2%	0%	0%	0%	0%	0%

#### 5.4. Sources of Awareness About ESKs

The most common sources of information about ESKs, cited by about one-third of respondents each, were their electric utility (including bill inserts) and word-of-mouth (including friends, family and co-workers) (Table 22). Less common sources included Energy Trust (including its website and representatives), traditional advertising (e.g., TV, radio, newspapers, and magazines), and online advertising (including Pandora Radio). Responses differed significantly by household income. Almost half (47%) of the recipients with a household income of less than \$50,000 said their electric utility was their first source of information, compared to only 17% of those with a household income \$50,000 or greater. Those in the higher-income group were more likely than others to report that Energy Trust sources, non-online and online advertising were their primary sources of ESK information.

Table 22: Sources of Information about ESKs

ESK INFORMATION SOURCES	ALL RESPONDENTS		INCOME <\$50,000		INCOME \$50,000+	
	COUNT	PERCENT	COUNT	PERCENT	COUNT	PERCENT
Electric utility	64	32%	42	45%	14	17%
Word-of-mouth	56	28%	28	30%	25	29%
Energy Trust program	25	13%	6	7%	17	20%
Traditional advertisement (air, print)	21	11%	5	5%	12	14%
Online advertisement	13	7%	4	4%	8	9%
Other	9	5%	5	5%	4	5%
Don't know	12	6%	3	3%	5	6%
Total	200	100%	93	100%	85	100%

Note: 22 respondents who refused to provide household income are not included in the analysis by household income.

## 5.5. Program Satisfaction

When asked how their experience with specific elements of the ESK compared with their expectations, the overwhelming majority of the respondents said all program elements at least “met expectations” (Table 23). They rated the process of ordering the ESK, and their experience dealing with an operator if they ordered by phone, highly. Just 6% of respondents reported that the design and performance of ESK products “fell short of my expectation.”

**Table 23: Experience Compared to Expectations**

EXPECTATIONS	FELL SHORT OF MY EXPECTATION	MET MY EXPECTATION	EXCEEDED MY EXPECTATION	TOTAL
Courtesy of the phone operator ( <i>n</i> =101)	0%	36%	64%	100%
Ease of ordering ESK ( <i>n</i> =197)	1%	44%	55%	100%
Time it took to receive ESK ( <i>n</i> =188)	3%	55%	41%	100%
Design of the ESK products ( <i>n</i> =198)	4%	54%	42%	100%
Performance of ESK products ( <i>n</i> =192)	6%	54%	40%	100%

Note: “Don’t know” or “not applicable” responses are excluded from these analyses. We asked this series of questions to all 200 respondents, and the table shows the valid number of respondents for each item.

A large majority of the respondents reported their overall experience receiving and installing the ESK was satisfactory. Just two percent indicated they were generally dissatisfied with the kit they received (Table 24).

**Table 24: Overall Satisfaction**

SATISFACTION	COUNT	PERCENT
Dissatisfied	4	2%
Neutral	10	5%
Satisfied	184	93%
<b>Total</b>	<b>198</b>	<b>100%</b>

Note: We used a 5-point scale. For this table, we combined ratings of “1” and “2” into a single “dissatisfied” category, and ratings of “4” and “5” into a single “satisfied” category. Two respondents provided “don’t know” responses, which we excluded from this analysis.

We asked all the respondents to suggest ways to improve the ESK. A quarter of respondents (28%, 56) provided improvement suggestions. As Table 25 shows, the most common suggestion was to allow customers to order more light bulbs.

**Table 25: Suggestions for ESK Improvement**

SUGGESTIONS	COUNT
<b>PERFORMANCE AND DESIGN OF ESK PRODUCTS</b>	
Bulbs take too long to warm up or are not bright enough	9
Aerators and showerheads do not provide enough water pressure	7
Products did not fit existing equipment	5
Program should provide a wider selection in the finish of showerheads	4
<b>ORDERING AND SHIPMENT OF ESK</b>	
Program should allow ordering more light bulbs if needed	12
Long wait time after ordering (three-eight weeks)	6
Better descriptions of products on the web order form	4
Better packaging (bulbs were broken when received)	3

## 5.6. Influences of ESK on Other Energy Efficiency Actions

We asked all of the respondents if they had bought any more of the energy-efficient items in their ESK because of their experience with the kit. Their comments suggest that the kits achieved a substantial positive spillover effect (Table 26). More than half of these contacts (58%) reported buying at least one of the ESK items. Almost exclusively, they bought light bulbs, and more than half of these respondents said they bought more than five efficient light bulbs after they received the ESK.

**Table 26: Post-ESK Efficient Product Purchase Due to ESK (Multiple Responses Allowed)**

POST-ESK PURCHASES	COUNT	PERCENT (N=178)
Bath aerator	0	0%
Kitchen aerator	1	1%
Showerhead	4	2%
Light bulbs	101	57%
None	74	42%

Note: We excluded 22 respondents who said, "don't know" or refused to answer this question.

Next, we asked whether their experience with the items in the ESK had influenced them to investigate additional energy efficiency improvements in their home. Two-thirds (67%) reported the ESK had influenced them to consider at least one of the improvements shown in Table 27. Most frequently, they mentioned low-cost actions, such as installing more-efficient light bulbs and weatherization materials, although they also mentioned some high-cost actions, such as adding insulation, installing energy efficient appliances, and replacing windows.

**Table 27: Energy Efficiency Actions under Consideration Due to ESK (Multiple Responses Allowed)**

POST-ESK ACTIONS CONSIDERED	COUNT	PERCENT (N=134)
Installing more-efficient light bulbs	39	29%
Installing weatherization materials	31	23%
Adding insulation	21	16%
Purchasing energy efficient appliances	17	13%
Installing a new water heater	13	10%
Replacing windows	13	10%
Installing a new heating system	12	9%
Replacing lighting fixtures	7	5%
Installing a new cooling system	2	1%
Insulating ducts	2	1%

## 5.7. Home Energy Profile

We asked all the respondents whether any of the members of the household had used Energy Trust’s Home Energy Profile tool (Table 28). More than 20% reported they had used the tool. We found some significant demographic differences between those who had used Home Energy Profile and those who had not. Households that had used Home Energy Profile were significantly more likely to be younger (less than 50 years old), with at least a college education or with higher education, have a household income of \$50,000 or more, and be Caucasian.

**Table 28: Used Home Energy Profile**

	<u>TOTAL</u>		<u>AGE</u>		<u>EDUCATION</u>		<u>HH INCOME</u>		<u>RACE</u>	
	COUNT	%	< 50	>= 50	NO BACH	WITH BACH.	< \$50K	>= \$50K	NOT WHITE	WHITE
Yes	41	21%	13%	32%	13%	30%	13%	32%	8%	24%
No	148	74%	87%	68%	87%	70%	87%	68%	92%	76%
Don't know	11	5%	-	-	-	-	-	-	-	-
<b>Total</b>	<b>200</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Of those who used Home Energy Profile, more than one third reported they had completed at least one recommended upgrade (34%) and more than one quarter said they were planning to complete at least one recommended upgrade in the near future (29%). However, 37% said they did not intend to take any actions as a result of Home Energy Profile recommendations in the next six months (Table 29).

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**Table 29: Actions after Home Energy Profile**

<b>ACTION</b>	<b>COUNT</b>	<b>PERCENT</b>
Have completed at least one recommended upgrade	14	34%
Planning to complete at least one recommended upgrade in the next 6 months	12	29%
Not planning to complete any recommended upgrades in the next 6 months	15	37%
<b>Total</b>	<b>41</b>	<b>100%</b>

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## 6. Conclusions and Recommendations

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A key aspect of this evaluation is determining what lessons can be learned from the past years' experience and how those lessons can be applied in 2014. Although contacts indicated several difficulties during the transition period, Fluid had some program successes. Fluid made the program more accessible to trade allies and homeowners by streamlining forms and offering online forms. Fluid also improved program awareness and delivery in rural Oregon, exploring energy saving opportunities in small towns and the regional cities and working with local governments and agencies to help promote the Energy Trust name and build credibility in historically underserved areas. Finally, Fluid also took actions to improve call center performance, and it appears that Fluid is positioned to meet the SLAs in 2014.

The transition was somewhat invisible to trade allies, and the changes they did notice were largely positive.

Based on our findings, we present the following conclusions and recommendations.

**Conclusion:** Fluid and Energy Trust staff differ regarding how to balance the program's need both to deliver savings and meet other needs, such as customer service, program equity, and compliance with policies and regulations. Fluid is focused on delivering savings, but Energy Trust has other needs that may or may not have been made clear during contract negotiations and the first year of the transition. Lack of communication between Energy Trust and Fluid staff exacerbated this and other challenges.

**Recommendation:** Energy Trust and Fluid should revisit Fluid's contract and statement of work to more clearly outline Fluid's responsibilities in meeting Energy Trust's needs related to non-savings goals. As part of that process, Energy Trust and Fluid should clarify communication lines, processes, and expectations.

**Conclusion:** The program chose to make a notable shift in program priorities by abandoning ESKs, an activity that brought in a large amount of savings in years past, in exchange for pushing more projects driven by trade allies and consumers. However, the shift away from ESKs came before the program was adequately positioned to replace those savings with incented measures. To move away from relying on ESKs for savings, it is key to market other program offerings to build awareness of offerings among customers and contractors.

**Recommendation:** The program needs to improve coordination between program marketing staff and Fluid. This includes Energy Trust's providing access to data Fluid needs to conduct targeted marketing or allowing Fluid to use alternative methods to conduct targeted marketing.

**Conclusion:** The CRM tool that Fluid was planning on using for their targeted marketing was not available when anticipated. When this became clear, developing alternatives to using the CRM tool should have been a priority to both Energy Trust and Fluid.

**Recommendation:** When faced with an obstacle such as a key tool not being available when necessary, Energy Trust should permit alternative approaches or otherwise be proactive in assisting the PMC to develop alternatives.

**Conclusion:** Some lack of coordination and communication between Energy Trust program and non-program staff may have undermined the program. Specifically, resolving tensions between program and finance staff about the appropriate balance between best practice accounting procedures with operational effectiveness and determining EH priorities for the IT department could have made the program run smoother in 2013.

**Recommendation:** In 2014, program and non-program staff may want to determine ways to better meet each other's needs by having strategy meetings or engaging in discussions to better address each other's concerns.

**Recommendation:** Energy Trust program staff and Fluid staff should work together to identify program priorities, and Energy Trust Existing Homes program staff should work with the Energy Trust IT department to identify and resolve any conflicting priorities (e.g., with other Energy Trust programs).

**Conclusion:** Continually making application forms easier to use for trade allies and homeowners can help automate the payment verification process, reducing the amount of Energy Trust staff time spent reviewing paper applications and verifying payments.

**Recommendation:** Fluid should continue to work to make paper and online forms mirror each other and promote online forms to trade allies.

**Conclusion:** ESK items are not always installed upon receipt. Many ESK items do not get installed because the equipment does not fit or the recipient received too many of a certain item.

**Recommendation:** Energy Trust and Fluid program staff should jointly consider building more flexibility into ESK orders to enhance customization and provide better item descriptions so that recipients are more likely to install the measures they order.

**Recommendation:** Fluid should consider sending follow-up notices to ESK recipients soon after they receive shipment to encourage them to install equipment, providing the call center number for questions they may have.

**Conclusion:** Evidence on the degree of saturation of energy efficiency services in the manufactured homes sector is equivocal. A small sample of trade allies reported high saturation in most parts of the state, but analysis using Census data indicates that recent Energy Trust market penetration is low.

**Recommendation:** If it is a high priority to obtain a clear picture of the degree of market saturation of energy efficiency services in the manufactured homes sector, Energy Trust should conduct analyses of the reach of Energy Trust projects over a larger time frame as well as market research that includes a larger sample of trade allies and data from community organizations.

## Appendices

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- Appendix A: Staff Interview Guide
- Appendix B: Trade Ally Interview Guide
- Appendix C: Stakeholder Instrument
- Appendix D: Builders in Southwest Washington Interview Guide
- Appendix E: Group Interview Guide – Electric Utilities
- Appendix F: Individual Utility Staff Interview Guide – Gas
- Appendix G: Energy Saver Kit (ESK) Survey
- Appendix H: Final Disposition of ESK Survey

# Appendix A. Existing Homes Staff Interview Guide

## A.1. Data Collection Activities

**Table A-1: Outline of Data Collection Strategy**

CONTACTS AND APPROACH	THIS INSTRUMENT
Instrument Type	In-depth interview (phone)
Estimated Time to Complete	~45 minutes (may run longer or shorter depending on respondent)
Population	Energy Trust Existing Homes staff and PMC staff
Population Size	9
Completion Goal	9

## A.2. Research Objectives

Table A-2 shows how each interview question relates to the pertinent research objectives identified in the kick-off meeting, as documented in the work plan. Other interview questions address general process issues, such as communication, goals, marketing, and program processes.

**Table A-2: Research Questions Addressed in Staff Interview**

RESEARCH OBJECTIVES	INTERVIEW QUESTIONS
Identify lessons learned during the PMC transition that will help the program going forward	(All questions)
Document the five-year trend of Energy Saving Kits (ESK) distribution	14-15
Understand whether trade allies are becoming the “face” of the program	46-52
Document the utilities’ role in supporting the program and highlight successes	31
Explore how Energy Trust and Fluid could expand energy savings in rural areas, particularly Cascade Natural Gas regions. How can they move beyond showerheads?	16-22
Explore possible methods to achieve savings in gas areas. What can be done to increase savings or decrease costs to make gas measures more cost effective?	16-22
Document successes and challenges of the phone home energy review (HER)	38-45
Document data loss during PMC transition	35-37
Document possible ways to analyze saturation of energy- saving measures in mobile homes	53
Identify possible market opportunities in mobile homes	53

### A.3. Pre-Interview Data Inputs

Before contacting the interviewee, the interviewer will record the available information from the project database as well as his/her name. If any of the listed information is not available from the database, the interviewer will ask the interviewee for it after completing the introduction and recruitment script. The interviewer will confirm the listed information found in the database.

Contact Name:

Contact Organization:

Contact Phone:

Date:

Interviewer:

### A.4. Introduction and Recruitment Script

[IF A COLD CALL]

Hello, may I speak to [name from call list]?

Hello, my name is \_\_\_\_\_ I'm calling from Research Into Action regarding the process evaluation of the Energy Trust Existing Homes Program. As part of the evaluation, we are speaking with members of Energy Trust's and Fluid Market Strategies' program staff to get a detailed understanding of the transition to the new implementation model and how the program is currently being implemented. We also will talk about communication with trade and program allies.

Would this be a convenient time for us to talk – we probably need about 30 minutes to an hour?  
[If not, schedule another time; if so, continue]

[IF SCHEDULED CALL]

Thanks for taking the time to talk today. We are evaluating the Existing Homes Program for Energy Trust. We are interested in hearing about activities undertaken in the 2013 program year. As part of that, we are interviewing staff who are involved with the program.

I understand that the program engaged a new program management contractor – or PMC – this year. When I refer to Fluid Market Strategies I'm simply going to say "Fluid" for short.

We will keep your responses confidential to the full extent of the law; nothing you say will be identified with you in our reports. I'll be typing notes as we talk and audio recording this interview to ensure the accuracy of my notes. The recording will not be provided to Energy Trust of Oregon.

Do you have any questions before we get started?

## A.5. Roles and Responsibilities

First, let me confirm your title:

And what has been your role for Existing Homes during the 2013 program year?

- a. Did you have any experience with the program prior to 2013? If so, how (if at all) has your role changed since transitioning to the new PMC

About what percent of your time do you spend on Existing Homes – full time or less?

Which Fluid and Energy Trust staff members do you work directly with?

Probe: Along with their names, what is their general role?

## A.6. Internal Communication and Coordination

### A.6.1. [All Interviewees, Except as Noted]

**RO: Identify lessons learned during the PMC transition that will help the program going forward**

Please describe the various communication channels you and [Fluid/Energy Trust] staff use to keep apprised of program activities. Let's start with...

The frequency and type of scheduled joint meetings – internally and with Fluid/Energy Trust.

[ENERGY TRUST] The frequency and type of reports that Fluid provides to you. [Probe: Who at Fluid provides what report to whom at ETO?]

[FLUID] The frequency and type of reports that you provide to Energy Trust.  
[Probe: Who at Fluid provides what report to whom at ETO?]

And what about informal phone and email exchanges – would you say Fluid/Energy Trust staff are open and accessible through those avenues?

Are you using any other ways to keep each other apprised of program activities?

Are these channels keeping information flowing between Energy Trust and Fluid staffs in a timely and efficient way? Why or why not? Where are the glitches?

Do you have any suggestions for improving staff communication going forward?

[FOR FLUID ONLY] Did you find that Energy Trust clearly defined their expectations of you as the new PMC?

- b. How well would you say their expectations aligned with what you assumed your role and responsibilities would be?

- c. [IF MISALIGNED] How did you work through these differences?-[PROBE: Were their expectations realistic?]

## A.7. Program Direction, Strategies, Anticipated Changes

### A.7.1. [Energy Trust: DF, MJ, AB/MW, and AS. Fluid: SB1, SF, BS – plus CW for Q0.]

**RO: Identify lessons learned during the PMC transition that will help the program going forward**

**RO: Document the five-year trend of ESK distribution**

**RO: Explore how Energy Trust and Fluid could expand energy savings in rural areas, particularly Cascade Natural Gas regions. How can they move beyond showerheads?**

**RO Explore possible methods to achieve savings in gas areas. What can be done to increase savings or decrease costs to make gas measures more cost effective?**

Let's talk about any major changes that took effect in the program during 2013, let's start with savings goals...

[ENERGY TRUST ONLY:] Did you make any major changes in program savings goals for 2013?

- d. What changes?

[ENERGY TRUST ONLY:] Over the past 5 years, what have been the objectives behind ESK distribution and how and when have those changed?

- e. How have the changes affected the number of kits distributed and the program as a whole?

Tell me about changes made regarding the Energy Savings Kits, or ESKs, in 2013, including what's in them, how they are requested, and how they are marketed.

- f. What role did Fluid play in making the changes, including suggestions made?
- g. What are the savings impacts of the 2013 kits, compared to the 2012 kits?
- h. How will the program collect savings with less focus on ESKs?
- i. What ways are these changes meeting (or not meeting) your expectations?
- j. Do you anticipate making more changes to Kits going forward? What and why?

Did you make any other changes in strategies, approaches, or measures offered to reach savings goals in 2013?

- k. Which ones?
- l. Why these?

And have you made any changes in 2013 to target certain customers (owners, renters, or mobile/manufactured homes), or geographical areas going forward?

- m. Why?
- n. And how have these changes been performing so far? (meeting or not meeting expectations)
- o. What have been the limitations that have prevented you from being more targeted?

[IF NOT MENTIONED ABOVE] Do you have, or are you working on ways to expand gas savings?

[CW AND SB] What might work to expand energy savings in rural areas, particularly Cascade Natural Gas regions?

- p. How might you move beyond showerhead savings in this area?
- q. Are you doing, or planning to do, anything differently in Cascade's region than the previous PMC?

How can the program make gas measures more cost effective? [measure selection, bundling, other ideas]

Have we missed talking about any other major changes implemented in 2013?

What changes to goals or strategies are planned for 2014?

- r. What processes are in place for making such changes?
- s. What challenges might complicate the rolling out of these changes?

## A.8. Marketing and Outreach

A.8.1. [Energy Trust: MJ, SJ.  
Fluid: SF or as delegated by her]

**RO: Identify lessons learned during the PMC transition that will help the program going forward**

**RO: Document the utilities' role in supporting the program and highlight successes**

Now let's talk briefly about marketing the Existing Homes program.

What roles, either separately or combined, do Energy Trust and Fluid staff have for developing marketing ideas?

t. How are these ideas shared – communicated?

Have there been any big changes in marketing strategies, messages, or materials since the new partnership?

u. Why were these changes made?

Were the reasons for these changes clearly communicated to everyone involved? [Probes: Energy Trust and Fluid staff, trade allies,]

v. What, if anything, could have streamlined or smoothed out the process?

What changes to marketing messages or approaches do you anticipate making during the remainder of 2013 or early 2014?

w. What are the reasons for making these changes?

I'd like to hear about the effort that went into revising program materials such as fact sheets, web content, application forms, the implementation manual, and any other customer-facing program information. *[Note to Interviewer / Analyst: Marketing team does not engage with forms]*

First, who on the Energy Trust and Fluid staffs has been responsible for content development and maintenance of the Existing Homes web page?

x. Content:

y. Maintenance:

What kinds of changes were made to program-related materials under the new PMC?

z. And who is responsible to changes made to forms and related instructions?

*[Follow-up with SJ: Marketing doesn't engage with forms – SJ mentioned that Lars and CCS handle forms. Follow-up on who Lars and CCS are and their connections with ET or Fluid]*

aa. How did the roll-out of the new materials including forms go?

bb. [IF ANY CHALLENGES MENTIONED:] How did Energy Trust and Fluid address those challenges?

[IF NOT MENTIONED ALREADY] Were there any issues or concerns during the transition with getting forms and content up on the website? If so, what were they?

cc. How were they resolved?

dd. What, if any, ways have you developed for avoiding such issues in the future?

What additional changes to marketing materials do you anticipate making in 2013 or 2014?

ee. Who will be responsible for those changes?

ff. What processes are in place for making the changes?

[Q0 ENERGY TRUST ONLY]

Tell me about marketing coordination with utilities – what have you been doing with what utilities and how has that been going?

gg. What is working particularly well?

hh. What would you like to be going better?

## A.9. Program Processes

**RO: Identify lessons learned during the PMC transition that will help the program going forward**

### A.9.1. [Energy Trust: MJ, AB/MW, and AS. Fluid: SB1, SF.]

Now let's turn to how the program is working in 2013.

Please highlight the major change made to program implementation processes. Let's start with any major changes that we haven't talked about yet made to...

...how customer inquiries are being handled and by whom? [External Fluid call center?]

ii. Is that a change with the new partnership?

jj. Is this approach going as smoothly as expected?

kk. Why or why not?

And what, if any, changes have been made this year to the customer application process?

ll. Why were changes made?

mm. Is the current approach meeting expectations? Why or why not?

Any major changes to the customer incentive process?

- nn. Why were changes made?
- oo. Is the current approach meeting expectations? Why or why not?
- pp. Going forward, what are the greatest challenges with the incentive process?

## A.10. Data Processing

### A.10.1.[Energy Trust: MJ, TB – may ask AB/MW and AS if they have input. Fluid: SF, BS.]

#### **RO: Document data loss during PMC transition**

What roles do the various Energy Trust and Fluid staff have in maintaining program intake and tracking data?

[Probes:

How do data get into Energy Trust's *FastTrack* system? Direct entry or batch?

What QC procedures are in place?]

Was any data lost during the transition? Data actually lost as well as changes that mean that some data will no longer be collected?

How has the transition to Fluid affected the way the program is managing data, tracking, and internal reporting?

- qq. What changes have been made since Fluid became the PMC?
- rr. [IF NOT MENTIONED] Have any changes been made to how incentives are processed?
- ss. Why did these changes occur?
- tt. How well are these changes meeting expectations so far?

## A.11. The Home Energy Review

### A.11.1.[Fluid: SF, BS – and any others they suggest.]

#### **RO: Document successes and challenges of the phone home energy review (HER)**

Briefly, how do customers schedule a home energy review (HER)?

- uu. Phone HER
- vv. Online HER

ww. In-house HER

What is the typical wait time for the phone and in-house HER services? And who manages the scheduling for both?

xx. Phone HER wait time:

i. Who manages schedule?

yy. In-house HER wait time:

i. Who manages schedule?

Are customers good about keeping these appointments?

zz. Phone

aaa. In-house

Besides scheduling, what other issues come up with each of the HERs? [customer self-reports of info, etc.]

bbb. Phone HER

ccc. Online HER

ddd. In-house HER

What do customers tell you that they like about each of the kinds of HERs?

eee. Phone HER

fff. Online HER

ggg. In -house HER

What are the limitations of each type of service? [Cost-effectiveness, follow-through, other?]

hhh. Phone HER

iii. Online HER

jjj. In-house HER

What changes would you like to see to any of the HERs?

Which of these are actually planned?

## A.12. Relationship with Trade Allies and Stakeholders

A.12.1.[Energy Trust: MJ, AB/MW, and AS – also DF if MJ agrees.  
Fluid: SB1, SF, CW.]

**RO: Identify lessons learned during the PMC transition that will help the program going forward**

**RO: Understand whether trade allies are becoming the “face” of the program**

In what ways do the various Energy Trust and Fluid staff work with trade allies and other program allies (such as lenders and realtors)?

[Probes: screening, list management, recruiting, training, coordinating, review submitted applications and forms, verify work done, other]

kkk. How is this different under the new PMC compared to previously?

lll. What changes do you see, if any, going forward?

What strategies have you found to be useful for encouraging low-activity trade allies to become more active? [Incentives, sales training, mentoring, other]

What lessons have you learned from highly active trade allies that have helped or might help you recruit other trade allies that are more likely to be successful program partners?

Now I'd like to turn to other program stakeholders.

[MJ, AB, AS] How does the program work with the Trade Ally Advisory Group and Home Performance Stakeholder Group?

[MJ, MW, AS] In what ways, if any, would you like to see collaborations with those groups expanded to better communicate program goals and activities to market actors and trade allies?

[SF] What interactions has your staff had with the Trade Ally Advisory Group or Home Performance Stakeholder Group in 2013?

[SF] How do you envision working or collaborating with these groups to communicate program goals and activities to market actors and trade allies? [Attend meetings, conduct presentations, provide trainings, discuss observed changes in the market by measures, or...]

## A.13. Challenges, Opportunities, Barriers

### A.13.1.[Energy Trust: MJ, AB/MW, and AS. Fluid: SB1, SF, CW.]

**RO: Document possible ways to analyze saturation of energy-saving measures in mobile homes**

**RO: Identify possible market opportunities in mobile homes**

We will be talking with trade allies that work in manufactured homes to ask about saturation of energy-saving measures in manufactured homes and identify possible market opportunities in that sector. Is there anything in particular you think we should ask them in these areas?

What challenges, if any, are there to increasing non-ESK savings?

mmm. How do you plan to address these challenges going forward?

## A.14. Wrap-Up

### A.14.1.[All Energy Trust and Fluid Staff]

Overall, what do you think is working best about the program so far?

What could work better?

Anything else you'd like to add?

That's all the questions I have. Thanks for your time.

As I review and analyze your responses, would it be alright if I contacted you again if I need to clarify a response?

Thanks again. Good-bye.

## Appendix B. Trade Ally Interview Guide

### B.1. Data Collection Activities

**Table B-1: Outline of Data Collection Strategy**

CONTACTS AND APPROACH	THIS INSTRUMENT
Instrument Type	Survey (phone)
Estimated Time to Complete	15-20 minutes
Population	Energy Trust 2 & 3 Star Trade Allies,
Population Size	260 (details below)
Completion Goal	50 (details below)

Based on our work plan, we will interview 50 trade allies. Among the 50 trade allies, we will attempt to interview 10 that work primarily in Washington and 4 that provide direct installs of duct and air sealing to manufactured/mobile homes. The remaining 36 will work primarily with single-family homes in Oregon. Table B-2 summarizes our proposed sampling plan for interviewing trade allies.

**Table B-2: Proposed Sample Plan for Trade Allies**

SUBGROUP	POPULATION	SAMPLE	NOTES RE SAMPLE SELECTION
Oregon-centric trade allies	232*	36	Rural/urban; 3-4 open-end interviews, with remaining surveys, 50% HES volume producers (i.e., wx), 25% heating, 10% water heating, and 15% HPwES
Washington-centric trade allies	28	10	2-3 open-end interviews, remaining surveys. These trade allies will be based in Washington and work primarily in Washington.
Manufactured/mobile homes	11	4	Ability to complete interviews is primary selection criterion because of estimated small population
<b>Total</b>	<b>260</b>	<b>50</b>	

\* These are the 2- and 3-star trade allies, Energy Trust's most active trade allies.

### B.2. Research Objectives

Table B-3 shows how each interview question relates to the pertinent research objectives identified in the kick-off meeting, as documented in the work plan. Other interview questions address general process issues, such as communication, goals, marketing, and program processes.

**Table B-3: Research Questions Addressed in Staff Interview**

RESEARCH OBJECTIVES	SUBGROUP	INTERVIEW QUESTIONS
Did trade allies' note any differences in the ability to keep informed of program activities, submit applications, and get questions answered during the transition period? If so, what were they?	All	T1, T4-T5, S1, S1_1 – S2_8
Has the transition resulted in any changes to program processes that trade allies see as either positive or negative? If so, what?	All	T1-T5, S1, S1_1 – S2_8
Has the transition had any positive or negative effects on the range of services that trade allies are able to deliver to their customers?	All	T1, FC1-FC3, S1_1 – S2_8
Do trade allies see themselves as the “face” of the program? Are there tools or resources they need from Energy Trust to be the “face” of the program?	All	FC4-FC9,
What can be done to increase savings or decrease costs to make gas measures more cost effective?	WA-centric	NG1-NG6
Program requirements that differ from those in Oregon	WA-centric	WA1-WA5, F3-F5
Ability to bundle Energy Trust high-efficiency furnace incentives with those of NW Natural programs.	WA-centric	NG5-NG6
Need to know more from program staff interviews	Manufactured/ mobile homes	MH1

### B.3. Pre-Interview Data Inputs

Before contacting the interviewee, the interviewer will record the available information from the project database as well as his/her name. If any of the listed information is not available from the database, the interviewer will ask the interviewee for it after completing the introduction and recruitment script. The interviewer will confirm the listed information found in the database.

**Table B-4: Database Information to Include in Interview Guide**

FIELD
Contact Name
Contact Company
Number of ETO Projects in Last Year
HES
HPF
XMH

### B.4. Introduction and Recruitment Script

Hello, my name is \_\_\_\_\_ and I am calling from Research Into Action on behalf of Energy Trust of Oregon. As part of our evaluation of the Existing Homes Program we are speaking with trade allies like you to learn about program management, in general, as well as the program successes or challenges you experienced in 2013.

Do you have 15-20 minutes to answer some questions about these topics or can we schedule a time within the next week to speak.

[IF SCHEDULED CALL]

Thanks for taking the time to talk today. We are evaluating the Existing Homes Program for Energy Trust. We are interested in hearing about activities undertaken in the 2013 program year.

Since January of this year, Fluid Market Strategies has been operating the Existing Homes program for Energy Trust; I'm simply going to refer to them as "Fluid" for short.

We will keep your responses confidential to the full extent of the law; nothing you say will be identified with you in our reports. I'll be typing notes as we talk and I would like to record our conversation to ensure the accuracy of my notes. Is it ok if I record our call? The recording will not be provided to Energy Trust of Oregon.

Do you have any questions before we get started?

## B.5. Roles and Responsibilities (RR)

RR1. [ASK ALL] First, can you tell me your title?

1. President/CEO
2. Manager
3. Sales person
4. Other, please specify: \_\_\_\_\_

RR2. [ASK ALL] What is your role in the organization?

RR3. [ASK ALL] How many years has your firm been an Energy Trust Trade Ally (an estimate is fine)?

## B.6. Firmographics (F)

F1. [ASK ALL] What services does your company provide to residential customers as an Energy Trust Trade Ally? [CHOOSE ALL THAT APPLY]

1. HVAC
2. Building Shell (insulation, air sealing, doors, windows)
3. Lighting
4. Plumbing
5. Other, please specify: \_\_\_\_\_

- F2. [ASK ALL] How many people work at your firm?
- F3. [ASK ALL] When you consider all of the projects your firm completes in a year, what percentage are conducted in Oregon?
1. \_\_\_-%
  2. None
  3. DK
- F4. [ASK ALL] How about Washington?
1. \_\_\_-%
  2. None
  3. DK
- F5. [ASK ALL] Based on annual revenues, what percentage of your work is done in the residential sector?
1. \_\_\_-%
  2. None
  3. DK
- F6. [ASK ALL] Based on annual revenues, what percentage of your work is done in the commercial sector?
1. \_\_\_-%
  2. None
  3. DK
- F7. [ASK IF F3>0] And over the past year, about what percentage of your firm's residential projects in Oregon received Energy Trust incentives?
1. \_\_\_-%
  2. None
  3. DK
- F8. [ASK IF F4>0] And about what percentage of your firm's residential projects in Washington received Energy Trust incentives?
1. \_\_\_-%
  2. None
  3. DK

F9. [ASK ALL] Does your firm do Energy Trust projects in manufactured/mobile homes?  
[MAKE SURE “YES” IS SELECTED FOR THE MH SPECIFIC CALLS]

1. Yes
2. No
3. DK

## B.7. Program Changes (T)

Now let's turn to interactions you've had with Energy Trust staff in 2013.

T1. [ASK ALL] Since the beginning of 2013, what changes, if any, have you noticed to Energy Trust's Existing Homes program ...

1. ...in the frequency or quality of information provided on program activities?
2. ...in the trainings offered?
3. ...Did you notice any changes in the application forms?
4. ...Any changes to the processing of applications?
5. ...in response time to your questions?
6. ...to the clarity of responses to your questions?
7. ...in terms of Quality Assurance inspections or verifications?
8. ...in the processing of incentive checks?
9. ...interactions with customers
10. ...in terms of claiming Business Development funds
11. ...Any other changes in how the program has been operated? please specify\_\_\_\_\_
12. ...No changes

T2. [ASK IF ANY CHANGES NOTED] How did the change affect ...

1. ...your ability to market the program?
2. ...the number of projects you've done?
3. ...the number of projects that received Energy Trust incentives?
4. ...customer satisfaction?
5. ...your involvement with the QA process

6. ...your satisfaction with the program?
  7. ...anything else? please specify\_\_\_\_\_
  8. ...No effect
- T3. [ASK IF T1 INDICATES CHANGE AND NOT SPECIFIED IN T2] How did changes to Energy Trust programs or services contribute to the change you noted?

## B.8. Firm Changes (FC)

- FC1. [ASK ALL] Over the last year, has your firm changed any services you offer to residential customers?
1. Yes
  2. No
  3. DK
- FC2. [ASK IF FC1= “Yes”] What services changed and why? [What was added, what was dropped]
- FC3. [ASK IF FC1= “Yes”] In what way, if any, were any of these changes influenced by changes to Energy Trust’s residential program in 2013? Please explain.[Probe to clarify whether response relates to Existing Homes program or other residential offerings]
- FC4. [ASK ALL] How do you use Energy Trust incentives to promote and sell your services? [CHOOSE ALL THAT APPLY – DO NOT READ LIST]
1. Include Energy Trust incentives on bid documents
  2. Inform potential customers their project may qualify for Energy Trust incentives
  3. Include Energy Trust in brochures and other printed materials
  4. Mention Energy Trust incentives in radio or TV advertisements
  5. Promote affiliation with Energy Trust on company website
  6. Other, please specify: \_\_\_\_\_
  7. DK
- FC5. [ASK ALL] How often do you include incentives on bid documents?
1. Always
  2. Most of the time
  3. Sometimes

4. Never

5. DK

FC6. [ASK ALL] How often do you suggest equipment that may qualify for Energy Trust incentives to potential customers that did not specify such equipment?

1. Always

2. Most of the time

3. Sometimes

4. Never

5. DK

FC7. [ASK ALL] How often do you suggest higher-efficiency equipment to potential customers that have specified equipment that would not qualify for Energy Trust incentives?

1. Always

2. Most of the time

3. Sometimes

4. Never

5. DK

FC8. [ASK ALL] In what ways do you use Energy Trust marketing materials to promote Energy Trust incentives?

FC9. [ASK ALL] In what ways, if any, have you used your own marketing and promotion materials to support Energy Trust?

FC10. Do you use Energy Trust Business Development funds? If so, how?

FC11. [ASK ALL] Did you attend any of the following Energy Trust activities in 2013? Did you attend...

1. Roundtable meetings, how many? \_\_\_\_\_

2. Trainings, how many? \_\_\_\_\_

3. Were any other events sponsored by Energy Trust? Which events and how many did you attend: \_\_\_\_\_

4. No events

FC12. [ASK IF FC11 = 1] Has your participation in Roundtables increased, decreased, or stayed the same since January 2013?

1. Increased
2. Decreased
3. Stayed the same

FC13. [ASK IF FC12= 1 or 2] Why has your participation in Roundtables [PIPE IN RESPONSE TO FC12]? [PROBE: Anything to do with changes made to ET programs in 2013?]

FC14. [ASK IF FC11= 2] Have the trainings you attended in 2013 had any impact on your ability to land jobs with homeowners?

1. Yes
2. No
3. DK

FC15. [ASK IF FC11= 2] What training topics helped you the most?

## B.9. Natural Gas Offerings (NG)

NG1. [ASK IF F4 >0%] In 2013, did you help customers receive incentives from the Northwest Natural Gas furnace incentive programs?

1. Yes
2. No
3. DK

NG2. [ASK IF NG1 = "Yes"] How do you help customers receive incentives from NW Natural? Do you bundle Energy Trust incentives with NW Natural incentives? How?

## B.10. Washington-Specific Questions (WA) (n=10)

WA1. [ASK IF F4 >0% AND F8\_1 IS SELECTED] You mentioned earlier that your firm completed Energy Trust projects in Oregon and Washington. What differences have you noticed between the programs in the two states in terms of ....

1. Incentive levels. Please specify how incentive levels are different? \_\_\_\_
2. Eligible measures. Please specify how measures are different? \_\_\_\_
3. Energy Trust representatives. Please specify the differences? \_\_\_\_\_

4. Other, please specify: \_\_\_\_\_
  5. There are no differences.
- WA2. [ASK IF WA1\_1 IS SELECTED] How, if at all, have the differences in incentive levels affected your business? [PROBE: Affected your ability to promote qualifying measures?]
- WA3. [ASK IF WA1\_2 IS SELECTED] How, if at all, have the differences in eligible measures affected your business? [PROBE: Affected your ability to promote qualifying measures?]
- WA4. [ASK IF WA1\_3 IS SELECTED] How, if at all, have the differences in Energy Trust representatives affected your business? [PROBE: Affected your ability to promote qualifying measures]
- WA5. [ASK IF WA1\_4 IS SELECTED] How, if at all, have the differences in [PIPE IN OTHER FIELD HERE] people affected your business?

## B.11. Manufactured Homes Specific Questions (MH) (*n=4*)

- MH1. [ASK IF F9= “Yes”] You mentioned earlier that your firm serves manufactured/mobile homes? Which of the following services do you provide? [CHECK ALL THAT APPLY]
1. Duct and/or air sealing
  2. Insulation
  3. HVAC
  4. Windows
  5. Plumbing
  6. Instant Savings Measures (ISMs) such as CFLs, aerators, and showerheads
  7. Other, please specify: \_\_\_\_\_
- MH2. [ASK IF F9= “Yes”] What area of Oregon to primarily serve?
- MH3. [ASK IF F9= “Yes”] How, if at all, does the Existing Homes program affect how you address efficiency issues in Oregon manufactured/mobile homes?
- MH4. [ASK IF F9= “Yes”] As far as you’re aware, have low-income agencies in your service areas been providing any energy efficiency services to manufactured/mobile homes? IF YES: What kinds of services? How widespread? (That is, about what percentage of the manufactured/mobile homes in your areas have they served?)
- MH5. [ASK IF F9= “Yes”] We understand that many manufactured homes have already been treated by Energy Trust programs. About what percentage of the manufactured/mobile homes in your areas have been treated by Energy Trust programs?

MH6. [ASK IF F9= “Yes”] We understand that many manufactured homes have already been treated by Energy Trust programs. Have you seen any change in the amount or type of work you have been doing in manufactured homes? If so, what changes? [Probe about changes in amount and type of work]

IF DECREASE: If so, what steps are you taking to get work in the manufactured home market?

IF OTHER CHANGES: What effects, either positive or negative, have those changes had on your business?

IF NEGATIVE: What, if anything, could Energy Trust do to help you address that?

MH7. [ASK IF F9= “Yes”] Do you see any unmet efficiency needs in the Oregon manufactured/mobile homes market that Energy Trust should take into account going forward?

## B.12. Satisfaction (S)

S1. [ASK ALL] On a scale of one to five where one is not at all satisfied and five is very satisfied, over the last six months how satisfied are you with the following aspects of your interactions with Energy Trust? How satisfied are you with Energy Trust’s...

	1	2	3	4	5	DK	N/A
1. ...marketing of the program (including Energy Trust materials)							
2. ...trainings offered							
3. ...application forms (ease of use)							
4. ...processing of applications							
5. ...response time to your questions							
6. ...the clarity of responses to your questions							
7. ...processing of incentive checks							
8. ...quality assurance reviews							
9. ...anything else, please specify _____							

S2. [ASK IF SCORE IN S1 <4] What were you dissatisfied with about...

**WHAT WERE YOU DISSATISFIED ABOUT**

- [ASK IF S1\_1 <4] ...marketing of the program
  - [ASK IF S1\_2 <4] ...trainings offered
  - [ASK IF S1\_3 <4] ...application forms (ease of use)
  - [ASK IF S1\_4 <4] ...processing of applications
  - [ASK IF S1\_5 <4] ...response time to your questions
  - [ASK IF S1\_6 <4] ...the clarity of responses to your questions
  - [ASK IF S1\_7 <4] ...processing of incentive checks
  - [ASK IF S1\_8 <4]...quality assurance reviews
  - [ASK IF S1\_8 <4] ...anything else, please specify\_\_\_\_\_
- 

### B.13. Conclusion (C)

C1. [ASK ALL] That's all the questions I have. Is there anything you'd like to mention, including any suggestions for Energy Trust?

## Appendix C. Stakeholder Instrument

**Table C-1: Overview of Data Collection Activity**

DESCRIPTOR	THIS INSTRUMENT
Instrument Type	In-depth interview
Estimated Time to Complete	15-20 minutes depending on response length
Population Description	Energy Trust's Home Performance Stakeholder and Trade Ally Stakeholder groups
Sampling Strata Definitions	
Population Size	7 member organization in HP Group; 13 member organization in Trade Ally Group (non-unique count of organizations across groups)
Call List Size	By Group
Completion Goal(s)	2 to 3 representatives of the Home Performance Stakeholder Group and Energy Trust's Trade Ally Advisory Group
Call List Source and Date	Energy Trust (Homes Project Manager)
Type of Sampling	Purposive Contact member organizations identified by ET as most active
Contact Sought	Contact name provided on the call list
Fielding Firm	

**Table C-2: Research Objectives and Associated Questions**

RESEARCH OBJECTIVE	ASSOCIATED QUESTIONS
Document how and why do ET and stakeholder groups work together	Qs 1-6
Document any suggestions for improved working relations	Q7

### C.1. Programmer Information

Data Source: Unique set of organizations listed in contact list provided by Energy Trust

Programming note style conventions in this document:

- › [PROGRAMMING] Programming instructions are in bracketed CAPS.
- › [Interviewer notes] Onscreen interviewer instructions are in *italics*.
- › [Piped value] Database inputs are in **bold**.

For each multiple response question, create separate binary variables for each response option.

## C.2. Interviewer Information

Interviewer instructions are in *italics*.

## C.3. Instrument

### C.3.1. Introduction

[IF A COLD CALL]

Hello, may I speak to [name from call list]?

Hello, my name is \_\_\_\_\_ I'm calling from Research Into Action on behalf of Energy Trust's Existing Homes Program. We are evaluating program activities during 2013 and Energy Trust gave us your name as a member of their [TRADE ALLY / HOME PERFORMANCE] Stakeholder Group. As part of our evaluation we'd like to understand your working relations with Energy Trust and see whether you have any suggestions regarding communications going forward.

We will keep your responses confidential to the full extent of the law; nothing you say will be identified with you in our report to the Energy Trust.

Would this be a convenient time for us to talk – I have 7-8 questions that will probably take about 15 minutes to cover? [If not, schedule another time; if so, continue]

[IF SCHEDULED CALL]

Thanks for taking the time to talk today. We are evaluating the Existing Homes Program for Energy Trust. As part of that, we are interviewing stakeholders regarding communication channels and to see whether you have any suggestions about working relations going forward.

We will keep your responses confidential to the full extent of the law; nothing you say will be identified with you in our reports. I'll be typing notes as we talk and audio recording this interview to ensure the accuracy of my notes. The recording will not be provided to Energy Trust of Oregon.

Do you have any questions before we get started?

### C.3.2. Screening [ASK ALL]

S1. Andrew Shepard gave me your name as one of the more active members of the Stakeholder group. I'd like to start by verifying that that is accurate.

### C.3.3. Roles and General Process Questions [ASK ALL]

[PROBE: How do you share ET information with your organization's members?]

- Q1. What is the general purpose of the XXX group? [PROBE: KINDS OF INFORMATION SHARED]
- a. Why do you attend – that is how does your organization benefit from collaborating with Energy Trust?  
[PROBES: Awareness of program activities, input into ET programs]
  - b. How does ET benefit?  
[PROBES: Market trends, awareness of TA concerns, what else?]
  - c. [IF NOT MENTIONED:] How is this relationship work as a two-way street? That is, ET keeping your organization informed of program activities and you sharing information on various market activities or trends?
- Q2. What kinds of ET program information do you find to be most useful to your members?
- Q3. And how do you get this info out to members of your organization?
- Q4. How do you and Energy Trust keep each other informed? That is, what channels do you use to share relevant information useful to both?  
[PROBE: Roundtables, and how else?]
- Q5. Have you experienced any changes in your working relationship with ET or Existing Homes implementation staff since the transition to Fluid in 2013? Please describe.
- Q6. In general, would you say that your working relationship is meeting its goals?
- Q7. And last, what, if anything, would improve the ET and HOME PERFORMANCE / TA Stakeholder group working relationship going forward?

Thank you for taking the time to talk with me today.

# Appendix D. Builders in Southwest Washington Interview Guide

## D.1. Instrument Information - Date of last revision: 12/17/13

**Table D-1: Overview of Data Collection Activity**

DESCRIPTOR	THIS INSTRUMENT
Instrument Type	Short-Answer Interview
Estimated Time to Complete	15 minutes
Population Description	Builders with project receiving Energy Trust incentives during 2012 or 2013
Sampling Strata Definitions	
Population Size	[by strata, if applicable]
Call List Size	[by strata, if applicable]
Completion Goal(s)	3-4 builders
Call List Source and Date	Energy Trust, Date October 2013
Type of Sampling	Purposive Contact the most active builders in the population first
Contact Sought	Employee in builder's organization familiar with Energy Trust New Homes or Products projects
Fielding Firm	Research Into Action

Table D-2 shows how each interview question relates to the pertinent research objectives identified in the kick-off meeting, as documented in the work plan. Other interview questions address general process issues, such as communication, marketing, and program processes.

**Table D-2: Research Objectives and Associated Questions**

RESEARCH OBJECTIVE	ASSOCIATED QUESTIONS
Identify lessons learned during the PMC transition that will help the program going forward	Q10-Q17
[Understand builders' awareness] Document sources of information about the New Homes program being used by builders (ET and NW Natural websites, and role of program staff (PMC)).	Q3-Q9
Assess current experience by documenting how Southwest Washington builders 1) access New Homes application forms and instructions, 2) accessibility of program staff for technical assistance with forms, questions about modeling or incentive levels.	Q3, Q10-Q14
Learn from builders how Energy Trust can best improve the trade ally experience (communications, marketing support, technical support)	Q14-Q17
[Document how builders perceive Energy Trust's role] Provision of incentives, marketing support, technical support, general assistance with applications and forms, modeling, verification and measurement, quality assurance.?	Q10-Q17

## D.2. Programmer Information

Data Source: Energy Trust

Before contacting the interviewee, the interviewer will record the available information from the project database as well as his/her name. If any of the listed information is not available from the database, the interviewer will ask the interviewee for it after completing the introduction and recruitment script. The interviewer will confirm the listed information found in the database.

**Table D-3: Database Inputs**

VARIABLE NAME	VARIABLE DESCRIPTION AND VALUES
Contact Name:	
Contact Organization:	
Contact Phone:	
Date:	
Interviewer:	

## D.3. Interviewer Information

### D.3.1. Program Description

Energy Trust offers their New Homes and Products programs to builders completing related projects within Northwest Natural's service territory in Southwest Washington. In 2013, Fluid Market Strategies (Fluid) replaced PECI as the Program Management Contractor. Three of the research topics outlined in the evaluation Work Plan are relevant to this group, including:

- Understand builders' awareness of the New Homes and Products programs in Southwest Washington
- Learning from stakeholder groups how Energy Trust can best improve the trade ally experience
- Documenting how trade allies and stakeholder groups perceive Energy Trust's role

## D.4. Instrument

### D.4.1. Introduction

[IF A COLD CALL]

Hello, may I speak to [name from call list]?

Hello, my name is \_\_\_\_\_ calling from Research Into Action on behalf of Energy Trust of Oregon. We are talking with a few builders who have worked with Energy Trust's New Homes or Products programs to assess how these programs have been working for you in 2013.

[IF SCHEDULED CALL]

Thanks for taking the time to talk today. Because of a few changes this year, Energy Trust is interested in hearing about your experiences with their programs operation in Southwest Washington, specifically the New Homes and Products programs.

[IF ASKED WHAT CHANGES] I understand that the program engaged a new program management contractor – or PMC – this year. When I refer to Fluid Marketing Strategies I'm simply going to say "Fluid" for short.

We will keep your responses confidential to the full extent of the law; nothing you say will be identified with you in our reports. I'll be typing notes as we talk and audio recording this interview to ensure the accuracy of my notes. The recording will not be provided to Energy Trust of Oregon.

Do you have any questions before we get started?

### D.4.2. Screening [ASK ALL]

S1. Before we start, I'd like to confirm that you're familiar with Energy Trust incentives to builders of new homes in Southwest Washington?

1. IF NO - TERMINATE
2. IF YES – PROCEED

### D.4.3. Roles and Responsibilities [ASK ALL]

[ASK ALL]

Q8. First what is your title

[SINGLE RESPONSE]

1. President
2. Manager
3. Sales Staff
- 96. Other, please specify: [OPEN-ENDED RESPONSE]
- 97. NOT APPLICABLE
- 98. DON'T KNOW
- 99. REFUSED

[ASK ALL]

Q9. What role did you have on new homes projects that qualified for an Energy Trust incentive in 2012 or 2013?

*[\$600 incentive to builder of gas heated home with ENERGY STAR certification or \$200 incentive of installing tankless gas hot water heater in non-ES home]*

1. Had no role
2. [OPEN-ENDED RESPONSE]
- 98. Don't know
- 99. Refused

### D.4.4. Awareness [ASK ALL]

RO: Document sources of information about the New Homes and Products programs being used by builders (ET and NW Natural websites, and role of program staff (PMC)).

I'd like to get a sense of how you are keeping apprised of information related to Energy Trust's New Homes program operating in Southwest Washington.

[ASK ALL]

Q10. During 2013, from which of the following sources did you get information related to Energy Trust's New Homes program?

[MULTIPLE RESPONSE]

1. Energy Trust website
2. Northwest Natural Gas website
3. Program staff
4. A trade show event
5. A professional meeting [PROMPT: Such as Building Industry Association of Southwest Washington]
- 96. Other, please specify: [OPEN-ENDED RESPONSE]
- 97. NOT APPLICABLE
- 98. DON'T KNOW

-99. REFUSED

[ASK ALL]

Q11. And thinking about other builders doing residential projects in Southwest Washington, would you say that “all,” “more than half,” “less than half,” or “very few” are aware of incentives offered by Energy Trust of Oregon?

[SINGLE RESPONSE]

1. All
  2. More than half
  3. Less than half
  4. Very few
- 98. Don't know  
-99. Refused

[ASK ALL]

Q12. What experience have you had with energy efficiency programs in Southwest Washington other than those offered to builders by Energy Trust? [Probe: This could be programs *run directly through* utilities such as Clark PUD or some other 3rd party.]

1. Haven't had any experience with other EE programs
  2. [OPEN-ENDED RESPONSE]
- 98. Don't know  
-99. Refused

[IF Q12 = 2 (Response)]

Q13. Please explain any opportunities you have for bundling other energy efficiency incentives with those offered by Energy Trust for new homes? [Such as the ET \$600 incentives to TA builders for ENERGY STAR home certification or NW Natural furnace incentives.]

1. [OPEN-ENDED RESPONSE]
- 98. Don't know  
-99. Refused

[ASK ALL]

Q14. In what ways, good or bad, do energy efficiency programs affect your business?

1. Don't really help
  2. [OPEN-ENDED RESPONSE]
- 98. Don't know  
-99. Refused

[ASK ALL]

Q15. What else, if anything, might Energy Trust do you help you to promote energy efficient new homes?

1. Nothing
2. [OPEN-ENDED RESPONSE]
- 98. Don't know
- 99. Refused

#### D.4.5. Impact of Transition

Now I'd like to ask you about how the New Homes program has been working for you in 2013.  
[IF Q10=1 (ACCESSED ET WEBSITES)]

Q16. Did you notice any changes in the information provided on the Energy Trust website for the New Homes program during 2013?

[SINGLE RESPONSE]

1. Yes
2. No
- 96. DON'T KNOW
- 97. REFUSED

[IF Q16=1 YES]

Q17. What impact did these changes have on your ability to access the information you were looking for?

*[REGARDLESS OF RESPONSE AKD FOLLOW-UP OPTION 4 – PLEASE DESCRIBE]*

[MULTIPLE RESPONSE]

1. Improved. Please describe how. [OPEN-ENDED RESPONSE]
2. Hindered. Please describe how. [OPEN-ENDED RESPONSE]
3. Had some other impact. Please describe how. [OPEN-ENDED RESPONSE]
4. PLEASE DESCRIBE HOW [OPEN-ENDED RESPONSE]
- 98. Don't know
- 99. Refused

[IF Q10=2 (ACCESSED NW NATURAL WEBSITES)]

Q18. Did you notice any changes in the information provided on Northwest Natural's website for New Homes program during 2013?

[SINGLE RESPONSE]

1. Yes
2. No
- 96. DON'T KNOW
- 97. REFUSED

[IF Q18 =1 (YES)]

Q19. What impact did these changes have on your ability to access the information you were looking for?

[REGARDLESS OF RESPONSE AND FOLLOW-UP OPTION 4 – PLEASE DESCRIBE]

[MULTIPLE RESPONSE]

1. Improved. Please describe how. [OPEN-ENDED RESPONSE]
2. Hindered. Please describe how. [OPEN-ENDED RESPONSE]
3. Had some other impact. Please describe how. [OPEN-ENDED RESPONSE]
4. PLEASE DESCRIBE HOW [OPEN-ENDED RESPONSE]
- 98. Don't know
- 99. Refused

[IF Q10=3 (PROGRAM STAFF)]

Q20. You mentioned getting information from program staff in 2013. Do you happen to recall the reasons you had for contacting program staff?

*If Contact had more than one occasion to contact staff in 2013, get a summary of main types of reasons for calling on program staff – e.g., help during specific processes.*

1. [OPEN-ENDED RESPONSE]
- 98. Don't know
- 99. Refused

[IF Q9 = 1 (OE RESPONSE)]

Q21. Overall, would you say that program staff were or were not able to address your questions in a timely and effective manner?

1. [OPEN-ENDED RESPONSE]
- 98. Don't know
- 99. Refused

[ASK ALL]

Q22. Are there ways the staff operating the New Homes programs could improve how builders are kept informed of Energy Trust programs operating in Southwest Washington?

1. No suggestions offered
2. [OPEN-ENDED RESPONSE]
- 98. Don't know
- 99. Refused

[ASK ALL]

Q23. And is there anything that Energy Trust staff might do to streamline or otherwise improve their working relationships with builders in Southwest Washington?

1. No suggestions offered
2. [OPEN-ENDED RESPONSE]
- 98. Don't know

-99. Refused

Thanks for your time. Is there anything else you would like to add?

\*\*\*\*\*END OF SURVEY\*\*\*\*\*

# Appendix E. Group Interview Guide – Electric Utilities

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## E.1. Research Objectives

The group interviews with Pacific Power and PGE plus Energy Trust staff will document collaborative marketing efforts between Energy Trust and utilities during 2012 and 2013. The interviews will also help identify possible ways Energy Trust and utilities could collaborate on other marketing efforts.

Specific questions to be explored during the group interviews with utility and Energy Trust staff will include the following.

- › In what ways have Energy Trust and the utility collaborated during 2012 and 2013?
- › What have been the strengths of the collaboration?
- › What role, if any, does the PMC play? How has that worked?
- › How could collaboration be improved?

As a secondary objective, we will investigate the following question with the appropriate utility contacts.

- › How has the transition to the new PMC affected major commercial utility accounts?

## E.2. Group Interview Introduction

Attendees will sign in when they enter and fill out nametags with first, last name and company name.

PPT SLIDE – RIA TEMPLATE

Process Evaluations of Existing Homes and  
Existing Buildings Program

Focus on Coordination of Marketing and Delivery

Good morning. Welcome everyone. Thank you for coming. My name is Jennifer Stout. I'm an independent consultant working as a subcontractor to Research Into Action.

Research Into Action is conducting an evaluation of the existing homes and existing buildings programs. Today I'm going to facilitate a group interview with all of you to get your thoughts on the coordination of program marketing and delivery.

To give you a sense of the time we'll spend, there are about 15 main questions that we'll take about ninety minutes to go over. I'll be using Power Point slides to help people follow and stay on topic. In addition to the structured interview questions, there will be a chance with open-ended questions to gather any thoughts you have outside of these questions.

A few housekeeping items:

- Bathrooms are...
- Cellphones on stun please...
- As I facilitate this session, for note taking purposes I'm recording the interview. Please speak up and give just your first name when you make a comment. That being said, as always with evaluation, all comments will be reported without attribution of the source.
- Before we start, I'd like say on behalf of Energy Trust that by doing this evaluation, they are committed to getting your feedback and strengthening the programs based on it.
- A few ground rules for the group interview:
  - Please speak up and give your first name before your comment.
  - Speak one at a time.
  - Please stick to the topic and be succinct.
  - Don't hesitate to give your opinion – especially if it differs from others.

*Interviewer Note:* Probe for any differences between residential and commercial sectors often.

### E.3. Role and Activities

PPT SLIDE

Your Role in the Existing Homes and Existing Buildings Programs

- Residential or commercial sector, or both?
- Current role related to SB838 funding.
- Role has changed in last one to two years? If so, how?

1. First we're going to go around the room and have each person give one to two sentences on the following:
  - a. Your first name (of course).
  - b. Do you work in the residential sector, the commercial sector, or both?
  - c. Your current role related to SB838 supplemental funding.

- d. If that role has changed, how in the last one to two years, and when it changed.
2. Is there anyone else not here today that works on SB838-funded activities? [IF YES, ask someone to answer questions above.]

## E.4. Marketing (PGE and Pacific Power only)

NEXT SLIDE & QUESTION SET →

PPT SLIDE

Utility use of SB838 Funding

- What activities does your utility use SB838 funding for?
- Utility goals for the funding for 2013? 2014?

3. Now think about how your utility uses the SB 838 funding. I don't have to get an answer from every single person.
  - a. First, what activities your utility funds with the SB838 supplemental public purpose funding?
  - b. What are your utility's goals related to the use of SB838 funding?

NEXT SLIDE & QUESTION SET →

PPT SLIDE

Program Marketing Roles

- Utility's role?
- Energy Trust's role?
- Program Management Contractor?
- Different roles this year versus last year?

4. How are Energy Trust programs marketed to customers? How do customers hear about them? What are the roles of...
  - a. [PGE][Pacific Power]
  - b. Energy Trust

- c. Energy Trust's Program Management Contractors (PMCs)
- d. How, if at all, is this change from 2012?

NEXT SLIDE & QUESTION SET →

PPT SLIDE

Coordination of Marketing: Activities, Branding, and Messaging

- How is program marketing coordinated among utility, Energy Trust, and PMC? (Meetings, phone calls, written plans?)
- What has gone well in 2013?
- What could be improved for 2014?

- 5. How is program marketing coordinated among [PGE][Pacific Power], Energy Trust, and Energy Trust's PMC(s)? [Probes: Regular meetings? Joint plans? Formal agreements? Mutual review of materials? Exchange of information on customer contact?]
- 6. What has been going well in 2013?
  - a. Is this about the same or different from how things were going during 2012?
  - b. What might be improved in 2014?
- 7. A customer might hear about a program from multiple entities – for example from both their utility and Energy Trust and the PMC.  
...Or a customer might hear about the program from different sources – a website, an ad, etc.
  - a. How consistent is the branding, messaging, and information that a customer might see from the various sources? [Probe on differences and any distinction between the residential and commercial segments.]
  - b. What is going well? What might be improved? [Probe on segment or sub-segment differences]
- 8. If a customer attends a meeting or event...
  - a. What follow-up does the utility do with attendees?
  - b. Is this customer follow-up coordinated and information shared with Energy Trust? [If yes, how? If not, why not?]

## E.5. Program Delivery

NEXT SLIDE & QUESTION SET →

PPT SLIDE

Customer Understanding of Program Offerings and How to Access

- Is it clear to customers what the program offerings are?
- Are customers clear on how to access the programs? (Where to go? Whom to call?)
- Are people at Energy Trust, utilities, and PMCs clear on how to direct customers to get information or get involved?
- What is going well? What might be improved? Any specific changes in the works?

9. Do customers know where to go to get program information and is that program information clear?
  - a. What is going well? What might be improved?
10. Do you think customers are clear on how to access the offerings?
  - a. What is going well? What might be improved?
  - b. Are there particular customer segments for which coordination with Energy Trust is especially effective? Segments that are especially challenging?
11. [ASK ALL] If a residential or commercial customer comes to your utility looking for assistance with energy efficiency upgrades, what is your process for directing them to the appropriate Energy Trust program?
  - a. How, if at all, has the transition to the new PMCs for both programs affected that process? [Probe for differences between the residential and commercial programs.]
  - b. [IF NOT ALREADY ADDRESSED] How has Energy Trust or its PMCs kept you informed about incentive [or program] changes? [Probe about Conservation Advisory Council (CAC) meetings]
  - c. What is going well? What might be improved?

NEXT SLIDE & QUESTION SET →

PPT SLIDE

Mechanisms for Addressing Program Delivery Questions or Issues?

- What are mechanisms for addressing? (Delivery manual, meetings, phone calls, written plans?)
- What is going well? What might be improved? Any specific changes in the works?

12. If there are issues with program delivery, what are the mechanisms for addressing them?

13. Overall, what is going well in terms of coordination between Energy Trust and your utility? What might be improved? Any specific changes in the works? If so, what are they and when will they be made?

14. [ASK EACH / ASK ALL] Do you have any further comments or suggestions on program delivery?

## E.6. Wrap-up

15. [ASK EACH / ASK ALL] Do you have any other comments on Energy Trust's residential or commercial programs?

Thank you for your time and for your valuable feedback.

# Appendix F. Individual Staff Interview Guide – Gas

## F.1. Data Collection Activities

**Table F-1: Outline of Data Collection Strategy**

CONTACTS AND APPROACH	THIS INSTRUMENT
Instrument Type	In-depth interview (phone)
Estimated Time to Complete	15-20 minutes
Population	Utility Representatives (NW Natural, Cascade Natural Gas)
Population Size	2
Completion Goal	2

Based on our work plan, we will interview representatives from the four utilities that support Energy Trust and possibly Clark County PUD in Washington.

## F.2. Research Objectives

The overarching objective for our 2013 evaluations of Existing Homes and Existing Buildings is to assess the transition to a new program management contractor (PMC), including documenting the program’s structure, delivery, and implementation strategy under the new PMC, and assessing the experience of Energy Trust staff and various market actors during the transition.

Interviews with utility staff will document energy efficiency marketing efforts between Energy Trust and utilities during 2012 and 2013. The interviews will also help identify possible ways Energy Trust and utilities could collaborate on other marketing efforts.

Specific questions to be explored during interviews with utility staff include the following.

- › In what ways have Energy Trust and the utility collaborated during 2012 and 2013?
- › What have been the strengths and weaknesses of the collaboration?
- › What role, if any, does the PMC play? How has that worked?
- › How could collaboration be improved?

As a secondary objective, we will investigate the following questions with the utility contacts.

- › How has the transition to the new PMC affected major utility accounts?
- › Should the program make any changes to the equipment covered or services offered?

### F.3. Introduction and Recruitment Script

[Following introductions] My name is \_\_\_\_\_ and I'm calling on behalf of the Energy Trust of Oregon to conduct an evaluation of their Existing Homes and Existing Buildings programs offered to residential and commercial customers in areas served by Energy Trust and [PGE] [Pacific Power] [NW Natural] [Cascade Natural Gas]. As part of the evaluation, we are interviewing staff from utilities about how the utility coordinates with Energy Trust, particularly on program marketing. We appreciate your participation in this evaluation, and want you to know your responses to our questions are confidential. Any comments from this interview that we use in our report will be reported without attribution of the source.

### F.4. Role and Activities

3. [ASK ALL] Would you briefly describe the role each of following entities has for marketing these programs as you see them?
  - a. [PGE] [Pacific Power] [NW Natural] [Cascade Natural Gas]
  - b. Energy Trust
  - c. Energy Trust's Program Management Contractors (PMCs)
4. [ASK ALL] What is your specific role in these two programs (Existing Homes and Existing Buildings)? If you have different roles for each, please explain.
  - a. How if at all has your role changed since January 2013?
  - b. [IF CHANGES] Did these change have anything to do with the programs' transitioning to new program management contractors (PMCs)? [Fluid Marketing Strategies for Existing Homes and ICF for Existing Buildings]

### F.5. Marketing

5. [ASK ALL] During 2013 what has your organization been doing to help customers find out about Energy Trust programs? [Probe: What is the main way?]
  - a. How, if at all, is this a change from 2012?
6. [ASK ALL] In your marketing materials, how are these programs branded? Explain any differences between your program collateral for Existing Homes and Existing Buildings.  
  
[Probe: From the customer's perspective, are these programs branded as [PGE] [Pacific Power] [NW Natural] [Cascade Natural Gas] or Energy Trust or both? Probe for what is going well, what might be improved.]
7. [ASK ALL] How is program marketing coordinated among [PGE] [Pacific Power] [NW Natural] [Cascade Natural Gas], Energy Trust, and the PMC?

- [Probes: Regular meetings? Joint plans? Formal agreements? Mutual review of materials?]
- c. What has been going well in 2013?
  - d. Is about the same or different than how things were going during 2012?
  - e. What might be improved going forward.
8. [ASK ALL] Energy Trust, the utilities, and program trade allies are promoting these programs using websites, ads, and other marketing materials. Do you see any issues with the consistency of information being provided across these sources?
- c. And what about clarity – Do you find that program offerings are clear to your customers – what is available, from whom, who to contact, and how to access the offerings?
  - d. What might improve consistency or clarity across the messengers (ET/PMC, TA, utilities)?
9. [ASK ALL] Any further comments or suggestions on program marketing?

### F.6. Delivery

10. [ASK ALL] Starting in January 2013, both programs transitioned to different PMCs. How do Energy Trust or their PMCs keep you informed about program delivery, including changes that effect marketing messages? [Probe: Program delivery manual? Regular meetings?]
- a. What is going well?
  - b. What might be improved going forward?
11. [ASK ALL] What, if any, training around program marketing and delivery is available for your marketing staff [provided by Energy Trust, the PMCs, or your own internal staff]?
12. [ASK ALL] Please describe how you hand of customers off to Energy Trust, or vice versa as needed to deliver different aspects of the program.
- c. How, if at all, have these processes changed with the transition to new PMCs . [Probe for differences between the Homes and Buildings programs]
13. [ASK ALL] Any further comments or suggestions on program marketing?

## F.7. Wrap-up

14. [ASK ALL] Do you have any other comments on either the Existing Homes or Building programs?

Thank you for your valuable feedback.

# Appendix G. Energy Saver Kit (ESK) Survey

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## G.1. Introduction

Hi, my name is \_\_\_\_\_ and I'm calling on behalf of Energy Trust of Oregon from which your household recently received a free Energy Saver Kit. Your Energy Saver Kit may have included high-performing showerheads, faucet aerators, and/or energy-efficient light bulbs. I'm calling today to ask you a few questions about how you are using some of the items you received.

### AS NEEDED:

- We know your time is valuable but the survey will only take a few minutes.
- This is not a sales call.

## G.2. Screening [ASK ALL]

S2. Are you [NAME]?

3. Yes
4. No
8. DON'T KNOW

[DISPLAY IF S2~=1]

S3. May I speak with [NAME]?

5. [IF THIS PERSON REACHED] REPEAT INTRODUCTION
6. [IF THIS PERSON IS UNAVAILABLE] THANK AND ADD NOT REACHED DISPOSITION TO CALL BACK

## G.3. Assessing Energy Saver Kit Installation

Our database indicates that your kit included several items.

First let me ask you about . . .

[ASK Q24-Q26 IF ASKBATH\_AERATOR=1]

### **BATH AERATOR**

The [#BATH\_AERATOR] bath aerator(s) you received. This is a small metal piece that you can screw in to a bathroom sink faucet to reduce water flow.

Q24. How many bathroom faucet aerators from the kit did you install in your home?

[SINGLE RESPONSE]

1. None
2. One
3. Two
6. Other, please specify: [OPEN-ENDED RESPONSE]
7. Not applicable
8. Don't know
9. Refused

[ASK IF (Q24 < 6) AND (Q1 < #BATH\_AERATOR)]

Q25. Do you plan to install all the bathroom faucet aerators you received in the next few months?

[SINGLE RESPONSE]

1. Yes
2. No
8. Don't know
9. Refused

[ASK IF Q25~=1]

Q26. What's getting in the way of installing the bathroom faucet aerator? [INTERVIEWER: DO NOT READ ITEMS]

[MULTIPLE RESPONSE]

1. Didn't know what that was
2. Didn't fit
3. Didn't work as intended (Please specify: \_\_\_\_\_)
4. Haven't gotten around to it
5. Got more (number of) items than needed
6. Current one is still working
7. Takes too much time to install it/No time/Too busy
8. Too difficult to install it, don't know how to do it
9. Don't have the tools I need
10. Don't have the items any longer (threw away, gave away)
96. Other, please specify: [OPEN-ENDED RESPONSE]
97. Not applicable
98. Don't know
99. Refused

[ASK Q27-Q29 IF ASKKITCHEN\_AERATOR=1]

**KITCHEN AERATOR**

Next, let me ask you about the [#KITCHEN\_AERATOR] kitchen faucet aerator(s) you received. This is a medium size metal and white plastic piece that you can screw in to a kitchen faucet to reduce water flow.

Q27. How many kitchen faucet aerators from the kit did you install in your home?

[SINGLE RESPONSE]

1. None
2. One
3. Two
6. Other, please specify: [OPEN-ENDED RESPONSE]
7. Not applicable
8. Don't know
9. Refused

[ASK IF (Q27 < 6) AND (Q4< #KITCHEN\_AERATOR)]

Q28. Do you plan to install all the kitchen faucet aerators you received in the next few months?

[SINGLE RESPONSE]

1. Yes
2. No
8. Don't know
9. Refused

[ASK IF Q28~=1]

Q29. What's getting in the way of installing the kitchen faucet aerator? [INTERVIEWER: DO NOT READ ITEMS]

[MULTIPLE RESPONSE]

1. Didn't know what that was
2. Didn't fit
3. Didn't work as intended (Please specify: \_\_\_\_\_)
4. Haven't gotten around to it
5. Got more (number of) items than needed
6. Current one is still working
7. Takes too much time to install it/No time/Too busy
8. Too difficult to install it, don't know how to do it
9. Don't have the tools I need
10. Don't have the items any longer (threw away, gave away)
96. Other, please specify: [OPEN-ENDED RESPONSE]
97. Not applicable
98. Don't know
99. Refused

[ASK Q30-Q32 IF ASKSHOWERHEAD=1]

**SHOWERHEAD**

Next, let me ask you about the [#SHOWERHEAD] showerhead(s) you received.

Q30. How many high performance showerheads from your kit did you install in your home?

[SINGLE RESPONSE]

1. None
2. One
3. Two
6. Other, please specify: [OPEN-ENDED RESPONSE]
7. Not applicable
8. Don't know
9. Refused

[ASK IF Q30 < #SHOWERHEAD]

Q31. Do you plan to install all the showerheads you received in the next few months?

[SINGLE RESPONSE]

1. Yes
2. No
8. Don't know
9. Refused

[ASK IF Q31~=1]

Q32. What's getting in the way of installing the showerhead? [INTERVIEWER: DO NOT READ ITEMS]

[MULTIPLE RESPONSE]

1. Didn't know what that was
2. Didn't fit
3. Didn't work as intended (Please specify: \_\_\_\_\_)
4. Haven't gotten around to it
5. Got more (number of) items than needed
6. Current one is still working
7. Takes too much time to install it/No time/too busy
8. Too difficult to install it, don't know how to do it
9. Don't have the tools I need
10. Don't have the items any longer (threw away, gave away)
96. Other, please specify: [OPEN-ENDED RESPONSE]
97. Not applicable
98. Don't know
99. Refused

[ASK Q33-Q35 IF ASKALAMP=1]

**A-LAMP LIGHT BULB**

Next, let me ask you about the [#ALAMP] A-lamp light bulb(s) you received. This is a compact florescent light bulb that looks like a traditional light bulb, but has a twisty or swirly fluorescent tube inside.

Q33. How many A-lamp light bulb(s) from the kit did you install in your home?

[SINGLE RESPONSE]

1. None
2. One
3. Two
6. Other, please specify: [OPEN-ENDED RESPONSE]
7. Not applicable
8. Don't know
9. Refused

[ASK IF (Q10 < 6) AND (Q33 < #ALAMP)]

Q34. Do you plan to install all the A-lamp light bulbs you received in the next few months?

[SINGLE RESPONSE]

1. Yes
2. No
8. Don't know
9. Refused

[ASK IF Q34~=1]

Q35. What's getting in the way of installing the A-lamp light bulb(s)? [INTERVIEWER: DO NOT READ ITEMS]

[MULTIPLE RESPONSE]

1. Didn't know what that was
2. Didn't fit
3. Didn't work as intended (Please specify: \_\_\_\_\_)
4. Haven't gotten around to it
5. Got more (number of) items than needed
6. Current one is still working
7. Takes too much time to install it/No time/Too busy
8. Too difficult to install it, don't know how to do it
9. Don't have the tools I need
10. Don't have the items any longer (threw away, gave away)
96. Other, please specify: [OPEN-ENDED RESPONSE]
97. Not applicable
98. Don't know
99. Refused

[ASK Q36-Q38 IF ASKCFL=1]

**CFL LIGHT BULB**

Next, let me ask you about the [#CFL] compact fluorescent light bulb(s) you received. This is a light bulb with an exposed twisty or swirly tube. I'll call them CFLs for the next questions.

Q36. How many CFL light bulb(s) from the kit did you install in your home?

[SINGLE RESPONSE]

1. None
2. One
3. Two
4. Three
5. Four
6. Five
7. Six
96. Other, please specify: [OPEN-ENDED RESPONSE]
97. Not applicable
98. Don't know
99. Refused

[ASK IF (Q13 < 96) AND (Q36 < #CFL)]

Q37. Do you plan to install all the CFL light bulbs you received in the next few months?

[SINGLE RESPONSE]

1. Yes
2. No
8. Don't know
9. Refused

[ASK IF Q37~=1]

Q38. What's getting in the way of installing the CFL light bulb(s)? [INTERVIEWER: DO NOT READ ITEMS]

[MULTIPLE RESPONSE]

1. Didn't know what that was
2. Didn't fit
3. Didn't work as intended (Please specify: \_\_\_\_\_)
4. Haven't gotten around to it
5. Got more (number of) items than needed
6. Current one is still working
7. Takes too much time to install it/No time/Too busy
8. Too difficult to install it, don't know how to do it
9. Don't have the tools I need
10. Don't have the items any longer (threw away, gave away)
96. Other, please specify: [OPEN-ENDED RESPONSE]
97. Not applicable

- 98. Don't know
- 99. Refused

[ASK Q39-Q41 IF ASKGLOBE=1]

**VANITY GLOBE LIGHT BULB**

Next, let me ask you about the [#GLOBE] vanity globe light bulb(s) you received. This is a light bulb that has a round, or globe shape cover with a twisty or swirly fluorescent tube inside.

Q39. How many vanity globe light bulb(s) from the kit did you install in your home?

[SINGLE RESPONSE]

- 1. None
- 2. One
- 3. Two
- 6. Other, please specify: [OPEN-ENDED RESPONSE]
- 7. Not applicable
- 8. Don't know
- 9. Refused

[ASK IF (Q16 LT 6) AND Q39 < #GLOBE]

Q40. Do you plan to install all the vanity globe light bulb(s) you received in the next few months?

[SINGLE RESPONSE]

- 1. Yes
- 2. No
- 8. Don't know
- 9. Refused

[ASK IF Q40~=1]

Q41. What's getting in the way of installing the vanity globe light bulb(s)? [INTERVIEWER: DO NOT READ ITEMS]

[MULTIPLE RESPONSE]

- 1. Didn't know what that was
- 2. Didn't fit
- 3. Didn't work as intended (Please specify: \_\_\_\_\_)
- 4. Haven't gotten around to it
- 5. Got more (number of) items than needed
- 6. Current one is still working
- 7. Takes too much time to install it/No time/Too busy
- 8. Too difficult to install it, don't know how to do it
- 9. Don't have the tools I need
- 10. Don't have the items any longer (threw away, gave away)
- 96. Other, please specify: [OPEN-ENDED RESPONSE]

- 97. Not applicable
- 98. Don't know
- 99. Refused

[ASK Q42-Q44 IF ASKREFLECTOR=1]

**REFLECTOR LIGHT BULB**

Next, let me ask you about the [#REFLECTOR] reflector light bulb(s) you received. This is a light bulb that looks like a spotlight and provides focused lighting. These bulbs often are used in recessed or can lighting fixtures in the ceiling.

Q42. How many reflector light bulb(s) from the kit did you install in your home?

[SINGLE RESPONSE]

- 1. None
- 2. One
- 3. Two
- 6. Other, please specify: [OPEN-ENDED RESPONSE]
- 7. Not applicable
- 8. Don't know
- 9. Refused

[ASK IF (Q19 < 6) AND (Q42 < #REFLECTOR)]

Q43. Do you plan to install all the reflector light bulb(s) you received in the next few months?

[SINGLE RESPONSE]

- 1. Yes
- 2. No
- 8. Don't know
- 9. Refused

[ASK IF Q43~=1]

Q44. What's getting in the way of installing the reflector light bulb(s)? [INTERVIEWER: DO NOT READ ITEMS]

[MULTIPLE RESPONSE]

- 1. Didn't know what that was
- 2. Didn't fit
- 3. Didn't work as intended (Please specify: \_\_\_\_\_)
- 4. Haven't gotten around to it
- 5. Got more (number of) items than needed
- 6. Current one is still working
- 7. Takes too much time to install it/No time/Too busy
- 8. Too difficult to install it, don't know how to do it
- 9. Don't have the tools I need
- 10. Don't have the items any longer (threw away, gave away)

- 96. Other, please specify: [OPEN-ENDED RESPONSE]
- 97. Not applicable
- 98. Don't know
- 99. Refused

[ASK Q45-Q47 IF ASKCANDELABRA=1]  
**CANDELABRA LIGHT BULB**

Next, let me ask you about the [#CANDELABRA] candelabra light bulb(s) you received. These light bulbs look like a candle flame.

Q45. How many candelabra light bulb(s) from the kit did you install in your home?

[SINGLE RESPONSE]

- 1. None
- 2. One
- 3. Two
- 6. Other, please specify: [OPEN-ENDED RESPONSE]
- 7. Not applicable
- 8. Don't know
- 9. Refused

[ASK IF (Q22 < 6) AND (Q45 < #CANDELABRA)]

Q46. Do you plan to install all the candelabra light bulb(s) you received in the next few months?

[SINGLE RESPONSE]

- 1. Yes
- 2. No
- 8. Don't know
- 9. Refused

[ASK IF Q46~=1]

Q47. What's getting in the way of installing the candelabra light bulb(s)? [INTERVIEWER: DO NOT READ ITEMS]

[MULTIPLE RESPONSE]

- 1. Didn't know what that was
- 2. Didn't fit
- 3. Didn't work as intended (Please specify: \_\_\_\_\_)
- 4. Haven't gotten around to it
- 5. Got more (number of) items than needed
- 6. Current one is still working
- 7. Takes too much time to install it/No time/Too busy
- 8. Too difficult to install it, don't know how to do it
- 9. Don't have the tools I need

10. Don't have the items any longer (threw away, gave away)
96. Other, please specify: [OPEN-ENDED RESPONSE]
97. Not applicable
98. Don't know
99. Refused

[ASK ALL]

Q48. Did you remove any of the new items you installed from the kit? Did you...

[MULTIPLE RESPONSE]

1. [ASK IF BATHAERATOR=1 and Q1 NE 1 (None)] ...Remove any of the new bath aerators?
2. [ASK IF KITCHEN AERATOR=1 and Q4 NE 1 (None)] ...Remove any of the new kitchen aerators?
3. [ASK IF SHOWERHEAD=1 and Q7 NE 1 (None)] ...Remove any of the new showerheads?
4. [ASK IF ALAMPLIGHTBULB=1 and Q10 NE 1 (None)] ...Remove any of the new A-lamp light bulbs?
5. [ASK IF CFLLIGHTBULB=1 and Q13 NE 1 (None)] ...Remove any of the new CFL light bulbs?
6. [ASK IF VANITYGLOBE LIGHTBULB=1 and Q16 NE 1 (None)] ...Remove any of the new vanity globe light bulbs?
7. [ASK IF REFLECTORLIGHTBULB=1 and Q19 NE 1 (None)] ...Remove any of the new reflector light bulbs?
8. [ASK IF CANDLEABRALIGHTBULB=1 and Q22 NE 1 (None)] ...Remove any of the new candelabra light bulbs?
9. None of the new kit items were removed

[ASK IF Q48\_1 = SELECTED]

Q49. How many bath aerators were removed? [Range = 1-3] 8 Don't know 9 Refused

[ASK IF Q48\_2 = SELECTED]

Q50. How many kitchen aerators were removed? [Range = 1-3] 8 Don't know 9 Refused

[ASK IF Q48\_3 = SELECTED]

Q51. How many showerheads were removed? [Range = 1-2] 8 Don't know 9 Refused

[ASK IF Q48\_4 = SELECTED]

Q52. How many A-lamp light bulbs were removed? [Range = 1-6] 8 Don't know 9 Refused

[ASK IF Q48\_5 = SELECTED]

Q53. How many CFL light bulbs were removed? [Range = 1-6] 8 Don't know 9 Refused

[ASK IF Q48\_6 = SELECTED]

Q54. How many vanity globe light bulbs were removed? [Range = 1-6] 8 Don't know 9 Refused

[ASK IF Q48\_7 = SELECTED]

Q55. How many reflector light bulbs were removed? [Range = 1-6] 8 Don't know 9 Refused

[ASK IF Q48\_8 = SELECTED]

Q32a. How many candelabra light bulbs were removed? [Range = 1-6] 8 Don't know 9 Refused

## G.4. Feedback on Marketing and Outreach [ASK ALL]

[ASK ALL]

Q56. How did you first learn about the Energy Saver Kit opportunity? [INTERVIEWER: DO NOT READ ITEMS]

[SINGLE RESPONSE]

1. Friend, family, co-worker, and other word-of-mouth
2. Energy Trust's Home Energy Profile
3. Through talking with an Energy Trust representative
4. Energy Trust's website
5. Contractor
6. My electric utility
7. My natural gas utility
8. Non-online advertisement (TV, FM or satellite radio, newspaper, magazine, etc.)
9. Online advertisement (including Pandora)
- 96. Other, please specify: [OPEN-ENDED RESPONSE]
- 97. Not applicable
- 98. Don't know
- 99. Refused

## G.5. Satisfaction [ASK ALL]

[ASK ALL]

Q57. Next, I'd like to ask you about how well your kit met your expectations. In particular, did the ...[PROGRAMMER: USE A GRID, RANDOMIZE ITEMS]

- a. ...Performance of the products you received
- b. ...Design of the products you received
- c. ...Ease of ordering the kit
- d. ...courtesy of the person you spoke with on the phone when ordering
- e. ...Time it took to receive your kit

[SINGLE RESPONSE]

- 1. Fall short of your expectations
- 2. Meet your expectations, or
- 3. Exceed your expectations
- 97. (VOL) Not applicable
- 98. (VOL) Don't know
- 99. (VOL) Refused

Q34aa. (IF Q34a=1) How did the performance of the products you received fall short of your expectations?

Q34ba. (IF Q34b=1) How did the design of the products you received fall short of your expectations?

Q34ca. (IF Q34c=1) How did the ease of ordering the kit fall short of your expectations?

Q34da. (IF Q34d=1) How did the courtesy of the person you spoke with on the phone when ordering fall short of your expectations?

Q34ea. (IF Q34e=1) How did the time it took to receive your kit fall short of your expectations?

- 1. Gave Response
- 8. Don't know
- 9. Refused

[ASK ALL]

Q58. Overall, how satisfied are you with the Energy Saver Kit using a 5-point scale, where 1 is 'not at all satisfied' and 5 is 'very satisfied'?

[SINGLE RESPONSE]

- 1. Not at all satisfied
- 2. 2
- 3. 3
- 4. 4
- 5. Very satisfied
- 8. Don't know
- 9. Refused

[ASK ALL]

Q59. Do you have any suggestions for how this kit could be improved?

- 1. [OPEN-ENDED RESPONSE]
- 8. Don't know
- 9. Refused

## G.6. Influence of Energy Saver Kit [ASK ALL]

[ASK ALL]

Q60. Since you received the kit, have you purchased any more of the following items because of your experience with the kit?

[MULTIPLE RESPONSE]

1. [IF BATH\_AERATOR=1] High-performance bathroom faucet aerator (Q38a. if yes, how many? \_\_\_\_\_) Range 1 to 10, 10 = 10 or more 98. Don't know 99. Refused
2. [IF KITCHEN\_AERATOR=1] High-performance kitchen faucet aerator (Q38b. if yes, how many? \_\_\_\_\_) Range 1 to 10, 10 = 10 or more 98. Don't know 99. Refused
3. [IF SHOWERHEAD=1] High-performance showerhead (Q38c. if yes, how many? \_\_\_\_\_) Range 1 to 10, 10 = 10 or more 98. Don't know 99. Refused
4. [IF LIGHTING=1] Energy efficient light bulbs (Q38d. if yes, how many? \_\_\_\_\_) Range 1 to 10, 10 = 10 or more 98. Don't know 99. Refused
5. Have not purchased more of these items as a result of experience with the kit.

[ASK ALL]

Q61. Has your experience with the Energy Saver Kit encouraged you to investigate additional energy efficiency improvements in your home?

[SINGLE RESPONSE]

1. Yes
2. No
8. Don't know
9. Refused

[ASK IF Q61=1]

Q62. What have you investigated doing? [INTERVIEWER: DO NOT READ ITEMS]

[MULTIPLE RESPONSE]

1. Install(ed) new heating system
2. Install(ed) new cooling system
3. Replac(ed) lighting fixtures
4. Install(ed) energy-efficient light bulbs
5. Install(ed) a new water heater
6. Add(ed) insulation
7. Replac(ed) windows
8. Add(ed) weatherstripping, caulking, or other measures to reduce air leakage
9. Seal(ed) or insulat(ed) ductwork
10. Purchase(d) other energy efficient appliances
96. Other, please specify: [OPEN-ENDED RESPONSE]
98. DON'T KNOW

99. REFUSED

## G.7. Home Energy Profile [Ask All]

[ASK ALL]

Q63. Have you or any other member in your household used Energy Trust's Home Energy Profile tool? It's an online tool that helps you estimate your home's energy use and provides a list of energy saving improvements you can make at your own pace.

[SINGLE RESPONSE]

1. Yes
2. No
8. Don't know
9. Refused

[ASK IF Q63=1]

Q64. Which of the following best describes what you've done or may do as a result of your experience with the Home Energy Profile?

[SINGLE RESPONSE]

1. You've already completed at least one recommended upgrade
2. You're planning to complete at least one recommended upgrade in the next 6 months.
3. You are not planning to complete any of the recommended upgrades in the next 6 months.
8. Don't know
9. Refused

## G.8. Demographics [ASK ALL]

Thanks for all of this information. I have a few final questions about you.

[ASK ALL]

Q65. First, would you tell me in what year you were born?

1. [OPEN-ENDED RESPONSE]
8. Don't know
9. Refused

[ASK ALL]

Q66. Please select the range that includes your annual household income from all sources in 2012 before taxes. Just stop me when I get to the correct category.

[SINGLE RESPONSE]

1. Under \$10,000

2. 10 up to \$30,000
3. 30 up to \$40,000
4. 40 up to \$50,000
5. 50 up to \$60,000
6. 60 up to \$70,000
7. 70 up to \$90,000
8. 90 up to \$110,000
9. 110 up to \$150,000
10. 150 to \$200,000
11. Over \$200,000
98. Don't know
99. Prefer not to say/

[ASK ALL]

Q67. What is your race?

[MULTIPLE RESPONSE]

1. White
2. Black, African American
3. American Indian or Alaska Native
4. Asian
5. Native Hawaiian or other Pacific Islander
6. Hispanic, Latino, or Spanish origin
96. Other, please specify: [OPEN-ENDED RESPONSE]
97. Not applicable
98. Don't know
99. Refused

[ASK ALL]

Q68. What is the highest level of education you have completed so far?

[SINGLE RESPONSE]

1. Some high school
2. High school graduate or equivalent (e.g., GED)
3. Trade or technical school
4. Some college (including Associate degree)
5. College degree (Bachelor's degree)
6. Some graduate school
7. Graduate degree, professional degree
8. Post-graduate
98. Don't know
99. Refused

That's all of my questions. Thanks so much for taking the time to talk with me! The information will help Energy Trust improve its Energy Saver Kit offering – and save people like you more energy and money.



# Appendix H. Final Disposition of ESK Survey

<b>TOTAL NUMBERS DIALED</b>	<b>662</b>	
<b>BAD NUMBERS (out of frame)</b>	<b>75</b>	<b>100%</b>
BUSINESS/GOVERNMENT NUMBER/NON-RESIDENT	15	20%
Cell Phone	0	0%
Fax/Modem Number/Computer Tone	1	1%
Incomplete Call/Line Problems (Temporary)	3	4%
Not In Service / Disconnected	30	40%
WRONG NUMBER - PERSON	25	33%
Possible Unassigned Number/No Answer All Attempts	1	1%
<b>TOTAL GOOD NUMBERS (total sample frame)</b>	<b>587</b>	
<u>NO CONTACT</u>	36	
<b>Live Non-Contacts</b>	<b>36</b>	<b>100%</b>
Busy	7	19%
No answer	29	81%
Live Non Contacts - OVER MAX (max set to 8)	0	0%
<b>TOTAL CONTACTS</b>	<b>551</b>	
<u>CONTACTS - NOT SCREENED</u>	317	
<b>Dead - Not Screened</b>	<b>14</b>	<b>100%</b>
Away for duration	4	29%
Foreign Language - NON-SPANISH	0	0%
Health Problems - LONG TERM	1	7%
Hearing Problems	8	57%
RESPONDENT DECEASED	1	7%
<b>Live - Not Screened</b>	<b>223</b>	<b>100%</b>
Answering Machine/Voice Mail	222	100%
CallBack - CALL BLOCKING	1	0%
Live Not Screened - OVER MAX (max set to 8)	0	0%
<b>Callback - Not Screened</b>	<b>69</b>	<b>100%</b>
Callback - APPOINTMENTS	4	6%

## Existing Homes Process Evaluation

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Callback - UNSPECIFIED	33	48%
Hung-up -	28	41%
Health Problems - SHORT TERM	1	1%
Foreign Language - SPANISH	2	3%
Callback - CALL BLOCKING (over max)	0	0%
Hung-up CB - OVER MAX	1	1%
Callbacks Not Screened - OVER MAX (max set to 8)	0	0%
<b>Refusals - Not Screened</b>	<b>11</b>	<b>100%</b>
Refusal - CALL BLOCKING	0	0%
Refusal - SOFT	4	36%
Second Soft Refusal	0	0%
Refusal - HARD (Do Not Callback)	7	64%
Refusals Not Screened- OVER MAX (max set to 8)	0	0%
<u>CONTACTS - SCREENED</u>	234	
<b>Screen-Outs</b>	<b>17</b>	<b>100%</b>
SCREEN-OUT	0	0%
SCREEN-OUT RESP DOESN'T RECALL GETTING KIT	17	100%
<b>Quota-Outs</b>	<b>0</b>	
Q/O (OVER QUOTA TERMINATE)	0	
<b>Qualified Refusals</b>	<b>2</b>	<b>100%</b>
Mid-Interview Term	0	0%
Qualified Soft Refusal - 1	1	50%
Qualified Hard Refusal - 1	1	50%
Qualified Refusals - OVER MAX (max set to 8)	0	0%
<b>Qualified Callbacks</b>	<b>15</b>	<b>100%</b>
Abandoned Interview	0	0%
Qualified Callback - 1	15	100%
Qualified Callbacks - OVER MAX (max set to 8)	0	0%
<b>Total Completes</b>	<b>200</b>	<b>100%</b>
Proceed with interview/Completed Interview	200	100%
Survey Incidence (Screening Incidence)	93%	
List Incidence (Dialing Incidence)	33%	
Cooperation Rate 1	94%	
Cooperation Rate 2	89%	
Totals Refusals	2%	

## Existing Homes Process Evaluation

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Response Rate 1	37%
Response Rate 2	40%