

Fast Feedback Results

2014 Report

Prepared by
Bruins Consulting & Analysis
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Executive Summary

Overview of Fast Feedback

- Fast Feedback is a short phone survey of a sample of recent program participants to assess satisfaction, understand customer decision making, and gather suggestions for program and process improvements. The survey is generally 10 questions or less, is customized for each program or measure of interest, and is designed to take no more than 5 minutes to complete.
- There are quarterly quotas for each program or measure of interest based on the project volume expected in that quarter. We attempt to survey enough participants to achieve 90% confidence and 10% precision each quarter. Calls are made each month to randomly selected participants whose incentive check was processed in the previous month and who have not been surveyed in the previous 12 months. Results are summarized and distributed quarterly to program staff. There is at least one opportunity in each survey for the respondent to give feedback that is recorded verbatim, and this feedback is provided with anonymity to program staff on a monthly basis (not included in this report).
- A total of 2,751 participants that completed projects between January and December 2014 were surveyed between February 2014 and February 2015. We strive to survey customers about a month after they receive their incentive check.
- Due to an error with survey programming, residential free ridership information was not captured correctly between July and November 2014.
- Satisfaction and influence throughout this report are calculated as the percentage of respondents providing a rating of 4 or 5 out of 5, excluding “don’t know” responses.
- Please see Appendix A for an explanation of free ridership calculations.
- Appendix B contains information about which measures are included and excluded from Fast Feedback surveys.

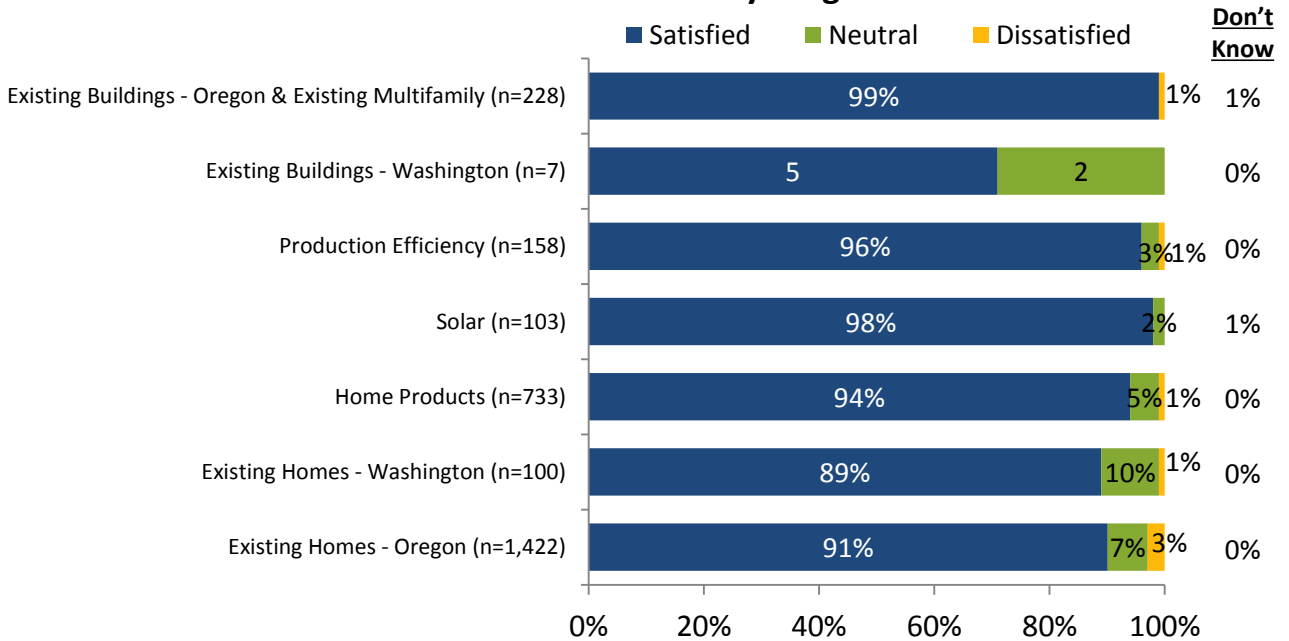
History of Fast Feedback

- Fast Feedback began as a pilot in mid-2009 for participants in the Existing Buildings and Production Efficiency programs, and was extended to most Energy Trust programs in the second quarter of 2010. A report on methods and results from Q2 2010 is available on the Energy Trust website ([link](#)); Fast Feedback continues to follow the general methods cited in that report.
- From Q2 2011 to Q4 2012, survey calls were made by Gilmore Research Group. As of Q1 2013, AbtSRBI has been making Fast Feedback survey calls.

Summary of Results

- Satisfaction with overall experience was high for the program groupings shown below, ranging from a high of 99% for Existing Buildings – Oregon & Existing Multifamily to 5 of 7 for Existing Homes – Washington.

Overall Satisfaction by Program

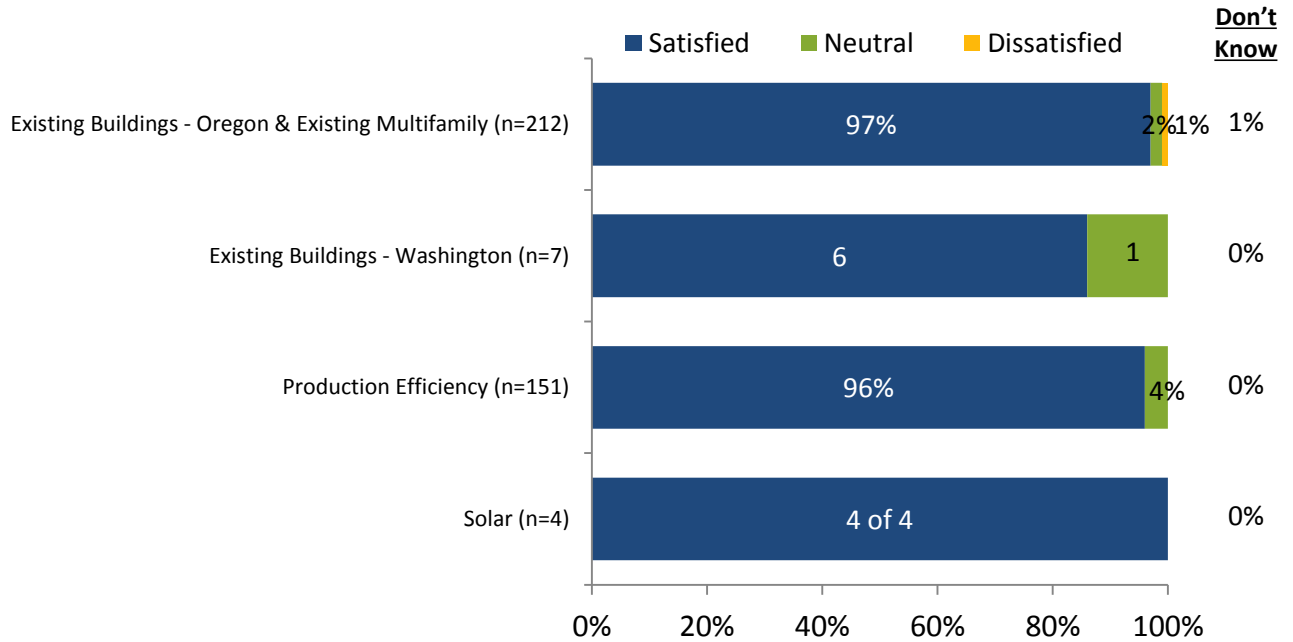


- Free ridership – the portion of participants who would have made energy efficient improvements or upgrades without incentives or information from Energy Trust – was much more variable than satisfaction and ranged from a high of 56% for clothes washers and refrigerators to a low of 16% for Multifamily electric projects. See Appendix A for an explanation of free ridership calculations.
- For many programs and measures, the Energy Trust incentive was the most influential of the program aspects in the decision to undertake an energy efficient improvement or upgrade. Other aspects investigated included information provided by Energy Trust, the contractor, and other features unique to certain programs or measures, such as free pick-up for refrigerator recycling.

Summary of Results

- Satisfaction with program representatives is only asked of commercial and industrial respondents. Since residential customers have varying degrees of interaction with program representatives (many may not have any interaction), and because it is not possible to identify customers who did have interaction to survey, residential customers are not questioned on this topic. Satisfaction was high for the program groupings shown below.

Satisfaction with Program Representative by Program



Summary of Results

Program	Respondents	Percent Satisfied	Free Ridership‡	
Commercial and Industrial				
			Electric	Gas
Existing Buildings – Oregon	182	98	24%*	28%*
Existing Buildings – Washington	7	5 of 7	--†	--†
Existing Multifamily	46	100%	16%	42%*
Production Efficiency	158	96%	32%	21%*
Solar				
Commercial Solar Electric and Water Heating	4	4 of 4	--†	
Residential Solar Electric	95	98%	--†	
Residential Solar Water Heating	4	4 of 4	--†	
Home Products				
Clothes Washers	276	93%		56%
Refrigerators	177	93%		56%
Refrigerator Recycling	280	95%		27%
Existing Homes				
Ceiling Insulation	188	89%		37%
Floor Insulation	144	94%		40%
Wall Insulation	81	93%		43%
Duct Insulation	85	95%		29%
Heat Pumps	118	86%		45%
Ductless Heat Pumps	122	95%		38%
Gas Fireplaces	182	89%		43%
Water Heaters	76	89%		48% ^α
Windows	257	90%		51%
Home Performance	57	90%		29%
Home Energy Review	174	88%		--
Existing Homes – Washington***	100	89%		--†
Existing Homes – Oregon	1,422	91%		--
Other Renewables				
Small Wind	0	--		--†

* Free ridership numbers are calculated using respondents that completed projects in prior years due to small sample sizes. See Appendix A for more information.

***Projects also included in other Existing Homes measure totals.

† Free ridership is not calculated through Fast Feedback.

‡ Free ridership estimates for residential measures are calculated for Oregon respondents only. However, the number of respondents and the satisfaction numbers for Existing Homes measures includes both Oregon and Washington respondents.

^α 0.67 residential gas water heaters are part of a market transformation effort; free ridership is shown for information only and will not be the basis for programmatic decisions about the measure.

Summary of Results

- Existing Homes participants were asked about satisfaction with their contractors; 91% were satisfied with their contractor overall. Satisfaction with the quality of installation work was also very high at 94%. Roughly 31% of Existing Homes participants considered Energy Trust's list of approved trade allies when selecting their contractor.

	Percent satisfied with contractor	Percent who considered trade ally list
Ceiling Insulation	89%	31%
Floor Insulation	94%	36%
Wall Insulation	86%	36%
Duct Insulation	94%	42%
Heat Pumps	92%	24%
Ductless Heat Pumps	96%	37%
Gas Fireplaces	91%	25%
Water Heaters	87%	29%
Windows	90%	23%
Home Performance	90%	51%
Overall	94%	31%

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Floor Insulation	34
Wall Insulation	36
Duct Insulation	38
Heat Pumps	40
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Commercial and Industrial Summary

- Fast Feedback surveys were completed with enough participants for results to meet the criteria of 90% confidence / 10% margin of error for all groups except Existing Buildings – Washington, due to the small population size for that group, and Existing Multifamily.
- 98% of Existing Buildings – Oregon respondents rated their overall satisfaction a 4 or 5 out of 5. Satisfaction for Existing Multifamily is very high at 100%. Satisfaction for Production Efficiency is also very high at 96%.
- Free ridership for Existing Buildings – Oregon electric projects was 24% (down from 38% in 2014 – note that the 2014 estimate includes projects from 2013 and 2014), while free ridership for gas projects was 28%. Free ridership for Multifamily electric projects was 16% (down slightly from 18% in 2013), while free ridership for gas projects was 42%. Free ridership for Production Efficiency electric projects was 32% (up from 20% in 2013), while free ridership for gas projects was 21%. Note that gas free ridership numbers are calculated using respondents that completed projects in 2012-2014 due to small sample sizes.
- New Buildings program participants are no longer surveyed through Fast Feedback as of Q1 2013. New Buildings projects often involve numerous market actors (architect, engineer, developer, owner and more) at different project stages, so it is difficult to reach a project representative who is able to respond to questions about satisfaction. As of Q2 2012, satisfaction and other information about New Buildings participants is obtained through annual program process evaluations.

Survey Group	2014 Projects [§]	Completed Surveys
Existing Buildings – Oregon*	2,744	182
Existing Buildings – Washington	39	7
Existing Multifamily	830	46
Production Efficiency*	698	158

*Contains subquotas for program tracks to ensure a variety of project types were surveyed.

[§] Project totals for 2014 only include projects eligible for Fast Feedback, and therefore may not match other Energy Trust reports for 2014.

Program	Percent Satisfied	Free Ridership (savings-weighted)	
		Electric	Gas
Existing Buildings – Oregon	98%	24%*	28%*
Existing Buildings – Washington	5 of 7	--†	--†
Existing Multifamily	100%	16%	42%*
Production Efficiency	96%	32%	21%*

* Free ridership numbers are calculated using respondents that completed projects in prior years due to small sample sizes. See Appendix A for more information.

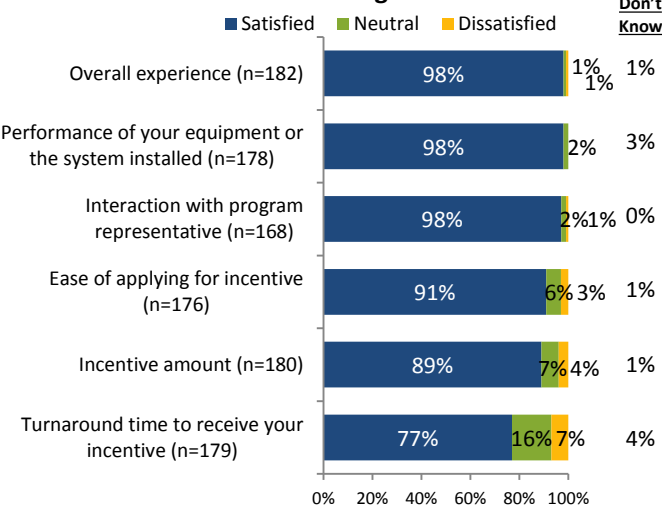
† Free ridership is not calculated through Fast Feedback.

Existing Buildings

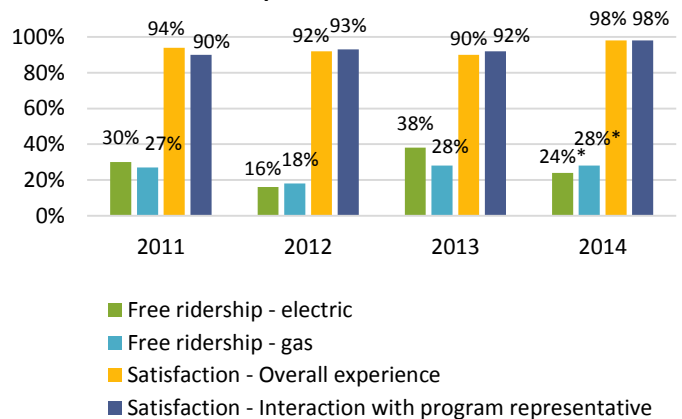
- 98% of respondents rated their satisfaction with Energy Trust a 4 or 5 out of 5, an increase from 2013 (90%). Satisfaction was lowest for the turnaround time to receive the incentive.
- The electric free ridership rate was 24% (down from 38% in 2013), and, due to small sample sizes, the 2014 estimate includes projects from 2013 and 2014. The gas free ridership rate (which included projects from 2012-2014) was 28%.
- 37% of respondents would have done the project the same way if Energy Trust incentives were not available; of those, 60% say that they would have been able to cover the cost of the project in the absence of Energy Trust's incentives.

Participant Satisfaction

Satisfaction with Program Elements



Free Ridership and Satisfaction Over Time



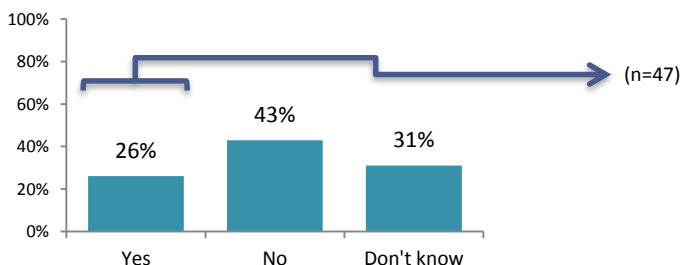
Note: The free ridership rates with asterisks were calculated using respondents that completed projects in years other than the year in question due to small sample sizes. The remaining free ridership rates do not include projects from other years.

Survey question:

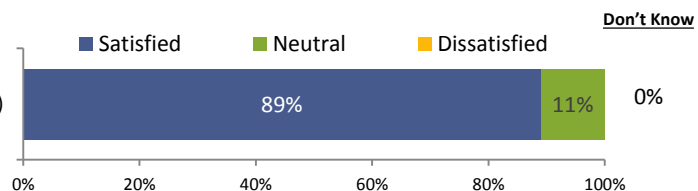
- Thinking of your participation with Energy Trust, please rate your satisfaction with each of the following elements on a 5-point scale where 5 is very satisfied and 1 is not at all satisfied.

Energy Trust-Funded Study

Did you receive an Energy Trust-funded technical study? (n=182)



Satisfaction with Study



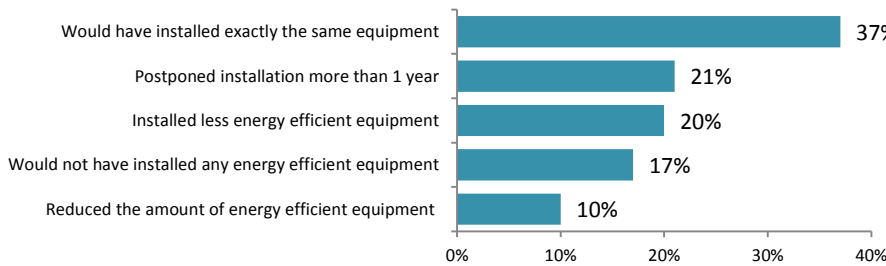
Survey questions:

- Did you receive an Energy Trust-funded technical study?
- Please rate your satisfaction with the quality of the study on a scale of 1 to 5 where 1 means not at all satisfied and 5 means very satisfied.

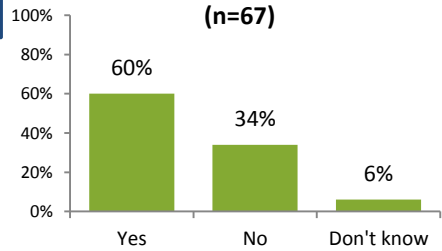
Existing Buildings

Impact of Incentives and Information

Actions Would Have Taken Without Incentive or Information (n=182)*



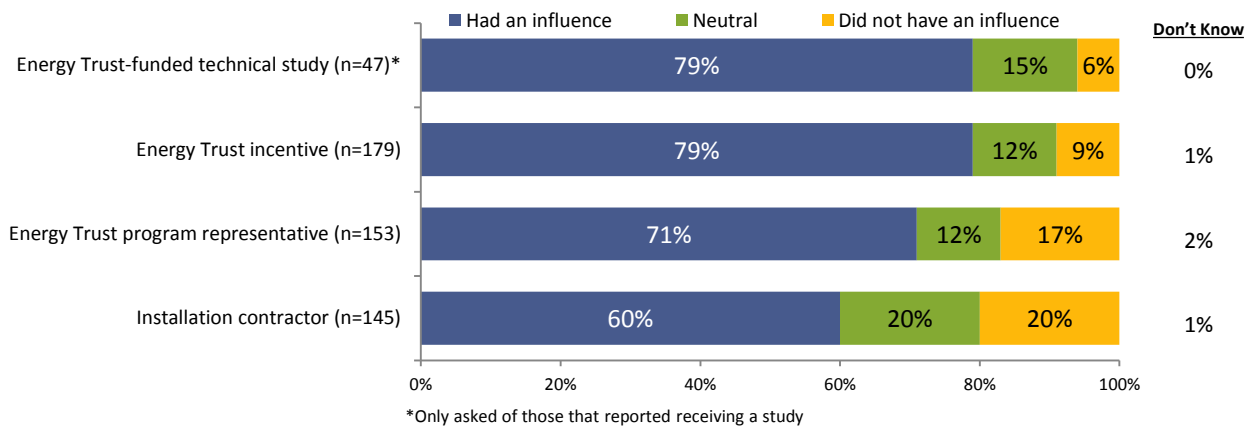
Would project cost have been covered without incentive? (n=67)



Survey questions:

- Which of the following statements describe the actions you would have taken had the Energy Trust incentive and information not been available?
- In the absence of the Energy Trust incentive, would your firm have made funds available to cover the entire cost of <improvement>?

Influences on Decision to Incorporate Energy Efficient Features in Project



Survey question:

- How influential were the following elements on your decision to incorporate energy efficient features in your project?

Oregon State Tax Credit

Have you applied for the Oregon state tax credit? (n=102)

Yes	7%
No, but plan to	23%
No, do not plan to	24%
Don't know	40%
Not applicable	7%

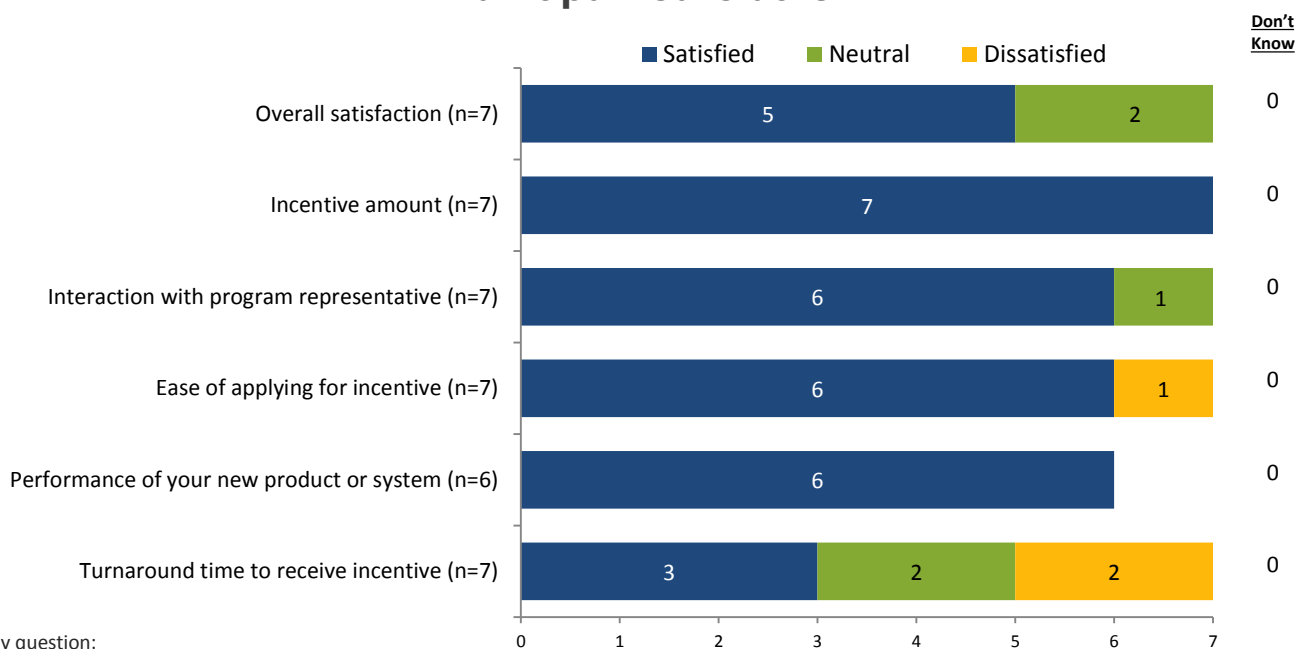
Survey question:

- Have you applied for the Oregon state tax credit, also known as the state Energy Incentives Program, for this project?

Existing Buildings - Washington

- Five out of seven respondents rated their overall satisfaction a 4 or 5 out of 5 (2 were neutral), and all seven were satisfied with the incentive amount.
- Four out of seven respondents would have installed exactly the same equipment without Energy Trust's incentive.
- Six out of seven respondents reported that Energy Trust incentives had an influence on their decision to incorporate energy efficient features in their project.

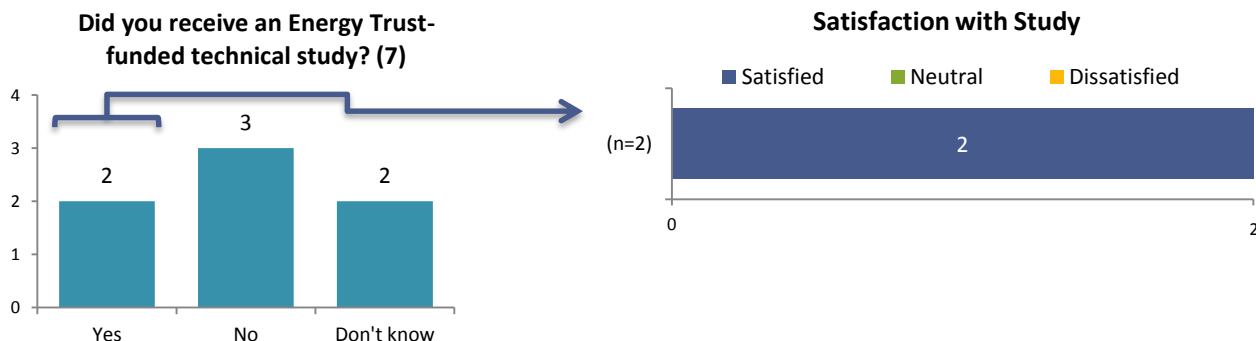
Participant Satisfaction



Survey question:

- Thinking of your participation with Energy Trust, please rate your satisfaction with each of the following elements on a 5-point scale where 5 is very satisfied and 1 is not at all satisfied.

Energy Trust-Funded Study

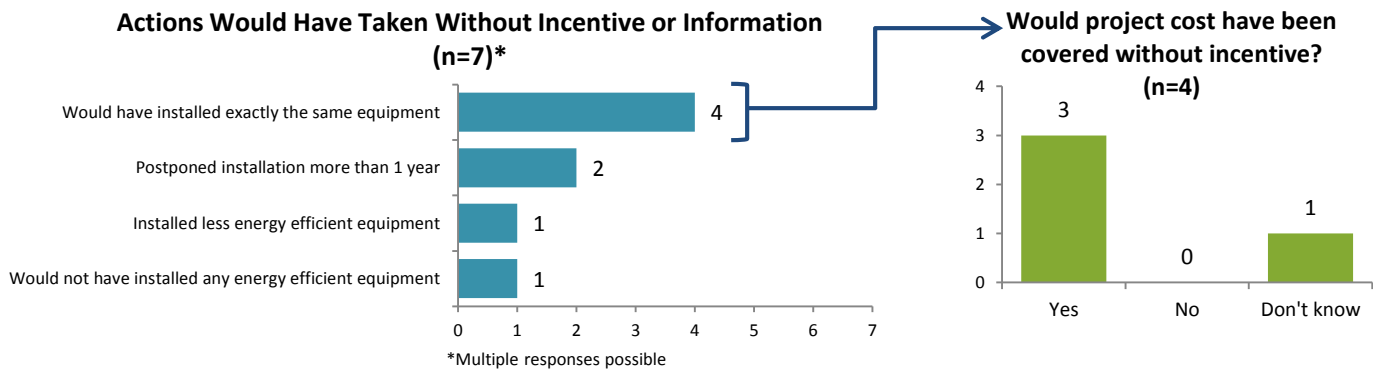


Survey questions:

- Did you receive an Energy Trust -funded technical study?
- Please rate your satisfaction with the quality of the study on a scale of 1 to 5 where 1 means not at all satisfied and 5 means very satisfied.

Existing Buildings - Washington

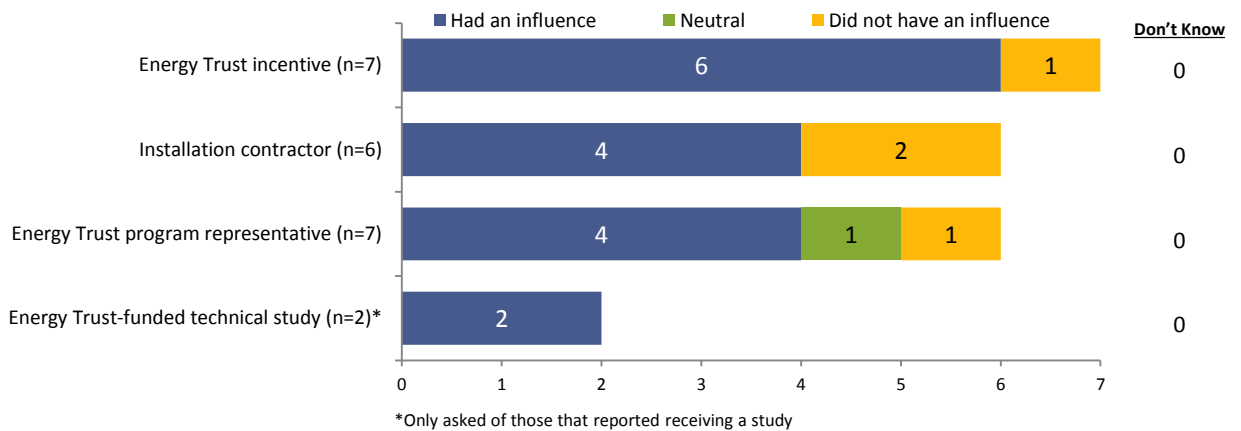
Impact of Incentives and Information



Survey questions:

- Which of the following statements describe the actions you would have taken had the Energy Trust incentive and information not been available?
- In the absence of the Energy Trust incentive, would your firm have made funds available to cover the entire cost of <improvement>?

Influences on Decision to Incorporate Energy Efficient Features in Project



Survey question:

- How influential were the following elements on your decision to incorporate energy efficient features in your project?

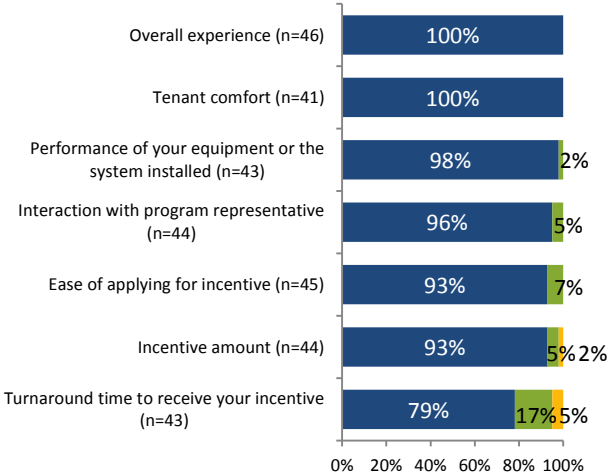
Existing Multifamily

- 100% of respondents rated their overall experience a 4 or 5 out of 5 (up from 94% in 2013). Satisfaction was lowest for turnaround time to receive the incentive. However, satisfaction was high with tenant comfort and equipment or system performance.
- The electric free ridership rate was 16% (down slightly from 18% in 2013). The gas free ridership rate, which includes data from 2012-2014 due to small sample sizes, was 42%. It is important to note that a 2012 project representing 32% of gas savings for all surveyed projects in 2012-2014 reported that they would have done the same they did in the absence of the program.
- 48% of respondents would have done the project the same way if Energy Trust incentives were not available; of those, 68% say that they would have been able to cover the cost of the project in the absence of Energy Trust's incentives.

Participant Satisfaction

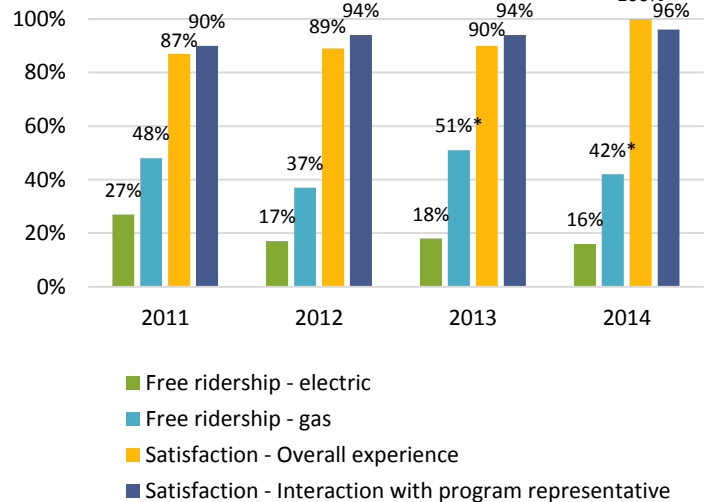
Satisfaction with Program Elements

■ Satisfied ■ Neutral ■ Dissatisfied



Don't Know

Free Ridership and Satisfaction Over Time

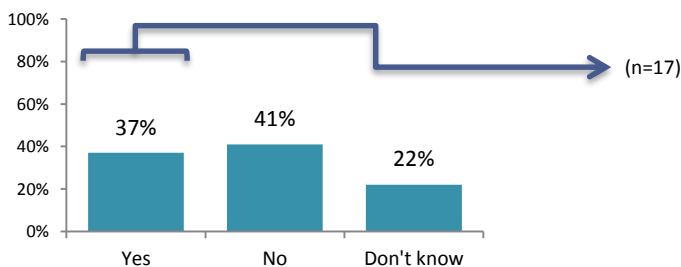


Survey question:

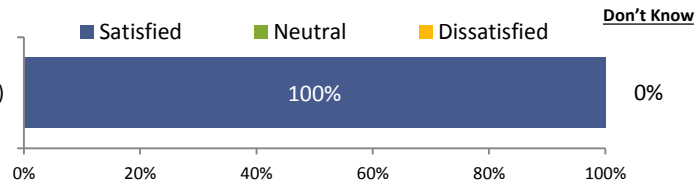
- Thinking of your participation with Energy Trust, please rate your satisfaction with each of the following elements on a 5-point scale where 5 is very satisfied and 1 is not at all satisfied.

Energy Trust-Funded Building Assessment

Did you receive an Energy Trust-funded building assessment? (n=46)



Satisfaction with Building Assessment

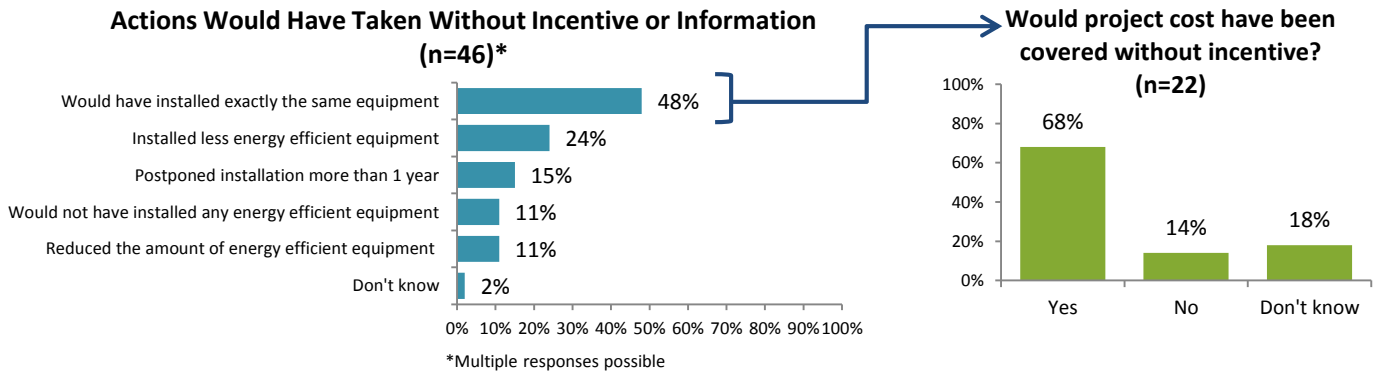


Survey questions:

- Did you receive an Energy Trust -funded building assessment?
- Please rate your satisfaction with the quality of the assessment on a scale of 1 to 5 where 1 means not at all satisfied and 5 means very satisfied.

Existing Multifamily

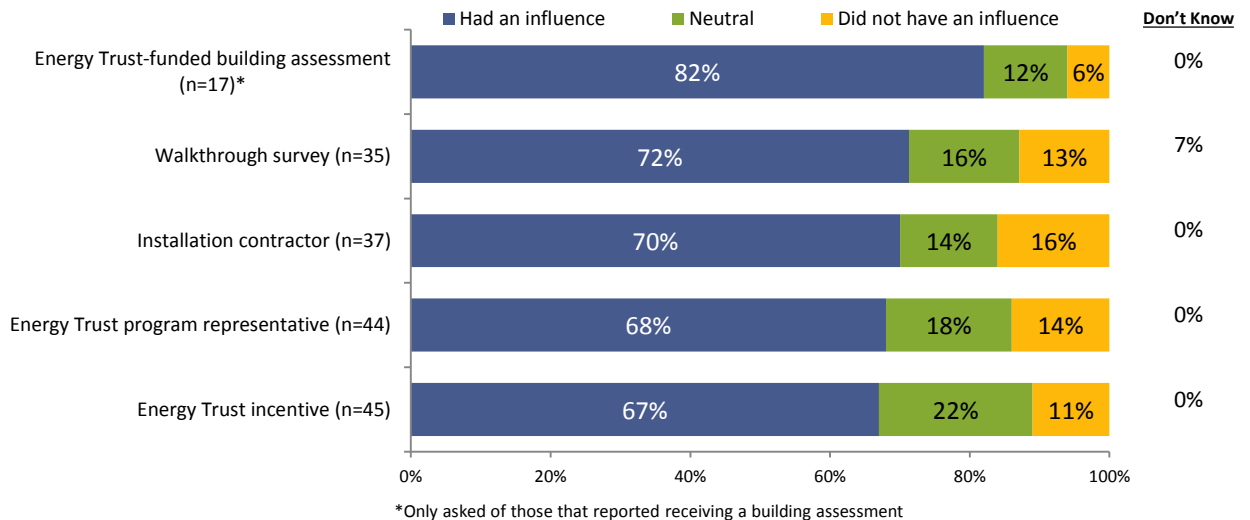
Impact of Incentives and Information



Survey questions:

- Which of the following statements describe the actions you would have taken had the Energy Trust incentive and information not been available?
- In the absence of the Energy Trust incentive, would your firm have made funds available to cover the entire cost of <improvement>?

Influences on Decision to Incorporate Energy Efficient Features in Project



Survey question:

- How influential were the following elements on your decision to incorporate energy efficient features in your project?

Oregon State Tax Credit

Have you applied for the Oregon state tax credit? (n=46)	
Yes	26%
No, but plan to	11%
No, do not plan to	28%
Don't know	28%
Not applicable	7%

Survey question:

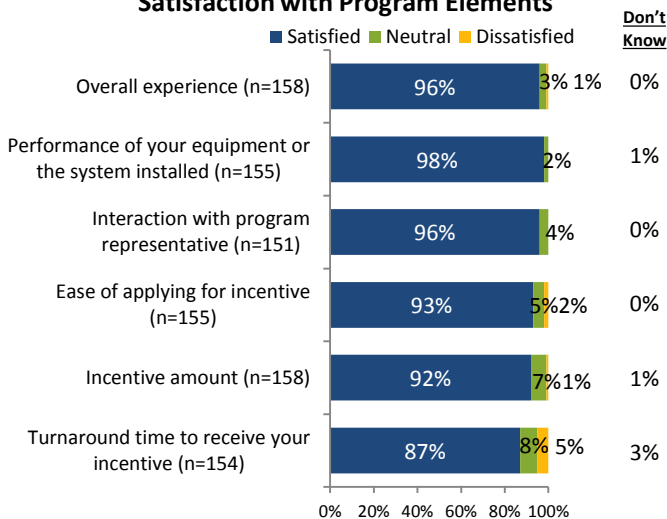
- Have you applied for the Oregon state tax credit, also known as the state Energy Incentives Program, for this project?

Production Efficiency

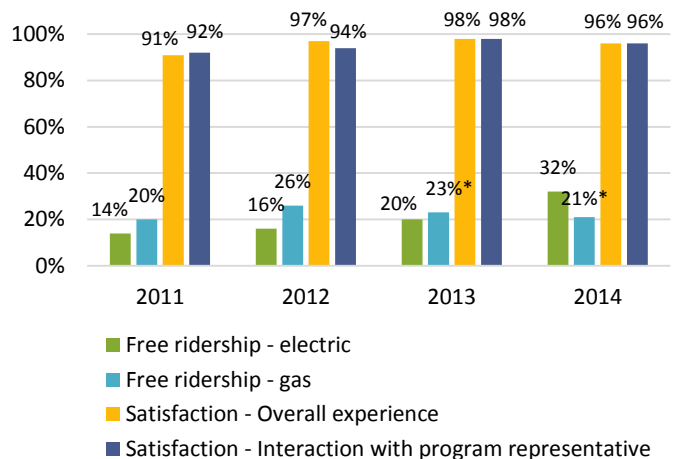
- A high number of respondents (96%) rated their overall satisfaction a 4 or 5 out of 5, down slightly from 2013 (98%). Satisfaction was very high for the performance of equipment or systems installed and interaction with program representatives. Respondents that reported receiving an Energy Trust-funded technical study were highly satisfied with the study.
- The electric free ridership rate was 32% (up from 20% in 2013). This is primarily being driven by a large custom project that accounted for 44% of the electric savings among surveyed custom track projects. The gas free ridership rate was 21%. Note that the 2014 estimate of gas free ridership includes projects from 2012-2014.
- 35% of respondents would have done the project the same way if Energy Trust incentives were not available; of those, 75% say that they would have been able to cover the cost of the project in the absence of Energy Trust's incentives. 81% of respondents said the Energy Trust-funded technical study had an influence on their decision to incorporate energy efficient features in their projects.

Participant Satisfaction

Satisfaction with Program Elements



Free Ridership and Satisfaction Over Time



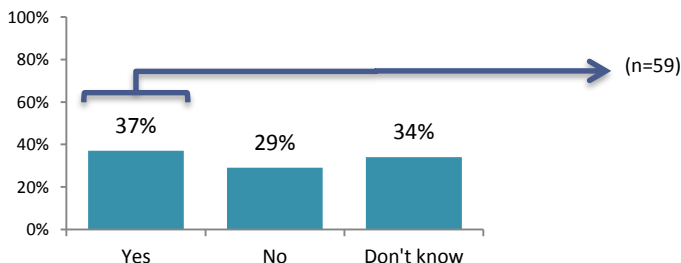
Note: The free ridership rates with asterisks were calculated using respondents that completed projects in years other than the year in question due to small sample sizes. The remaining free ridership rates do not include projects from other years.

Survey question:

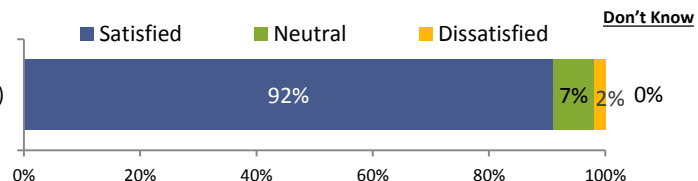
- Thinking of your participation with Energy Trust, please rate your satisfaction with each of the following elements on a 5-point scale where 5 is very satisfied and 1 is not at all satisfied.

Energy Trust-Funded Study

Did you receive an Energy Trust-funded technical study? (n=158)



Satisfaction with Study



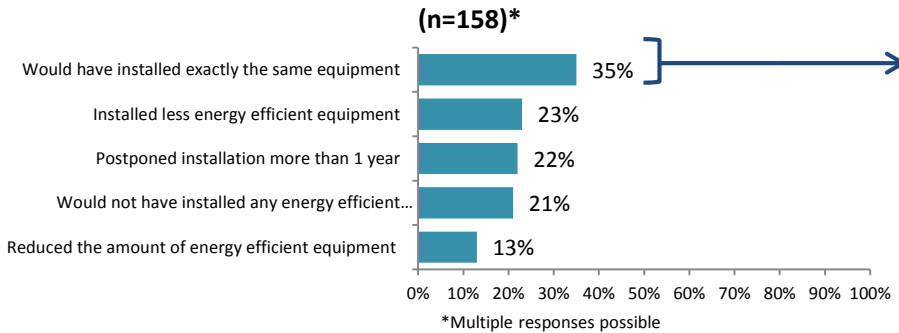
Survey questions:

- Did you receive an Energy Trust-funded technical study?
- Please rate your satisfaction with the quality of the study on a scale of 1 to 5 where 1 means not at all satisfied and 5 means very satisfied.

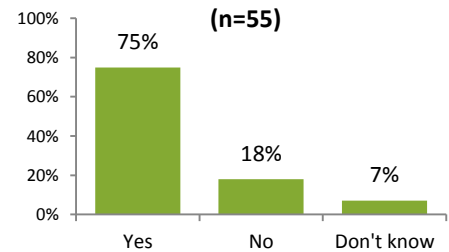
Production Efficiency

Impact of Incentives and Information

Actions Would Have Taken Without Incentive or Information



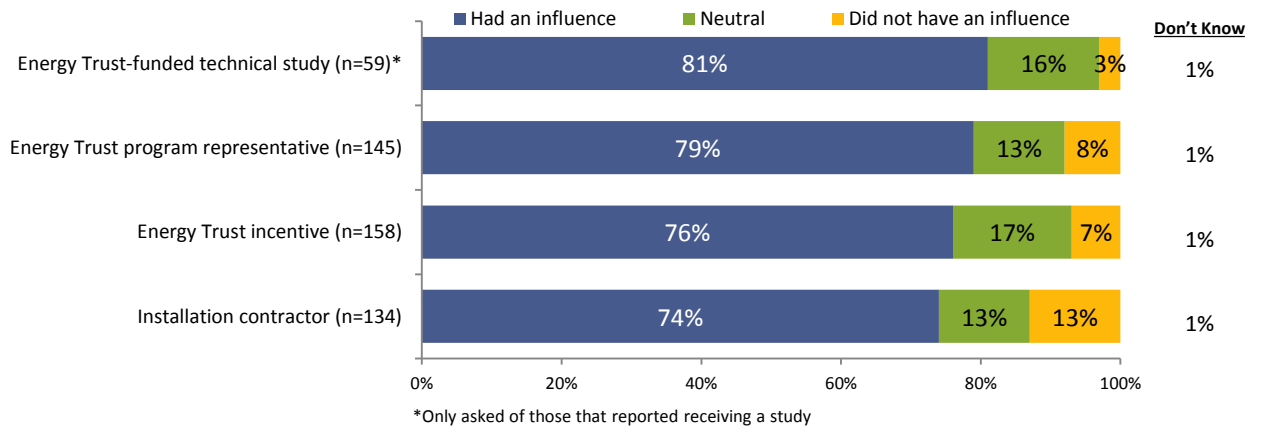
Would project cost have been covered without incentive?



Survey questions:

- Which of the following statements describe the actions you would have taken had the Energy Trust incentive and information not been available?
- In the absence of the Energy Trust incentive, would your firm have made funds available to cover the entire cost of <improvement>?

Influences on Decision to Incorporate Energy Efficient Features in Project



Survey question:

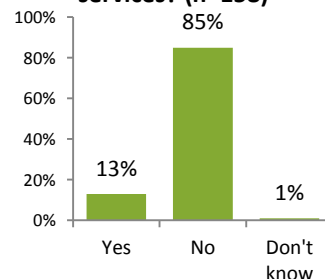
- How influential were the following elements on your decision to incorporate energy efficient features in your project?

Oregon State Tax Credit & Other Sources of Funding

Have you applied for the Oregon state tax credit? (n=96)

Yes	9%
No, but plan to	8%
No, do not plan to	26%
Don't know	50%
Not applicable	6%

Did you pursue other external sources of funding/technical services? (n=158)



Survey questions:

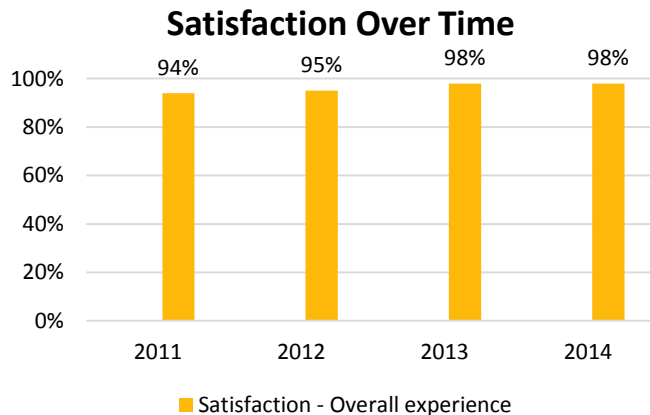
- Have you applied for the Oregon state tax credit, also known as the state Energy Incentives Program, for this project?
- Did you pursue other external sources of funding/technical services?

Solar Summary

- Due to small population sizes, only residential solar electric met the goal of 90% confidence / 10% margin of error.
- All of the commercial solar electric respondents were satisfied. On the residential side, 98% of solar electric respondents were satisfied, and all four of the solar water heating respondents were satisfied.

Survey Group	2014 Projects [§]	Surveys Completed	Percent Satisfied
Commercial Solar Electric	19	4	4 of 4
Residential Solar Electric	278	95	98%
Residential Solar Water Heating	16	4	4 of 4

[§] Project totals for 2014 only include projects eligible for Fast Feedback, and therefore may not match other Energy Trust reports for 2014.

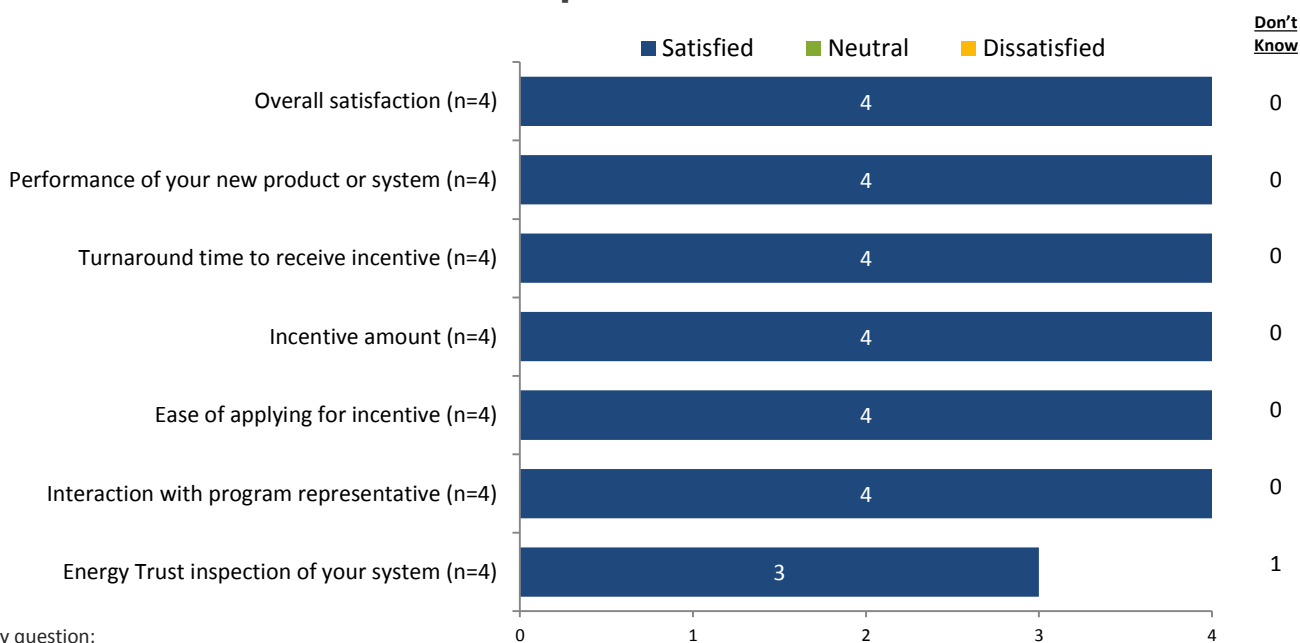


Note: The number of commercial solar respondents has fluctuated greatly over time – 32 in 2011, 17 in 2012, 5 in 2013, and 4 in 2014. In addition, the number of residential solar water heating respondents has fluctuated over time – 20 in 2011, 14 in 2012, 8 in 2013, and 4 in 2014. Due to very small sample sizes in some years, we do not show satisfaction over time for commercial solar for residential solar water heating.

Commercial Solar

- All four respondents rated their overall satisfaction a 4 or 5 out of 5, and were satisfied with the all aspects of their experience.
- Two of the four respondents said they would have installed exactly the same equipment without the incentive.
- All respondents reported that their contractor was influential on the decision to install the system.
- Regarding tax credits, 3 of 4 have or will apply for a federal tax credit.
- Three of four respondents reported that they had heard of the feed-in tariff incentive program prior to the start of their project.

Participant Satisfaction



Survey question:

- Thinking of your participation with Energy Trust, please rate your satisfaction with each of the following elements on a 5-point scale where 5 is very satisfied and 1 is not at all satisfied.

Tax Credits

Have you or will you apply for a federal tax credit? (n=4)	
Yes	3
No	1
Don't know	0
Does not apply	0

Had you heard of the feed-in tariff incentive program prior to the start of your solar project? (n=4)	
Yes	3
No	0
Don't know	1

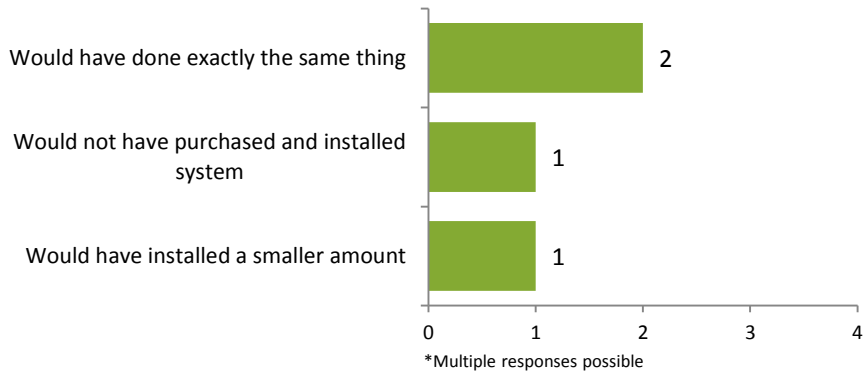
Survey question:

- Have you applied or will you apply for a federal tax credit?
- Did you heard of the feed-in tariff incentive program prior to the start of your solar project?

Commercial Solar

Impact of Incentives and Information

Actions Would Have Taken Without Incentive or Information
(n=4)*

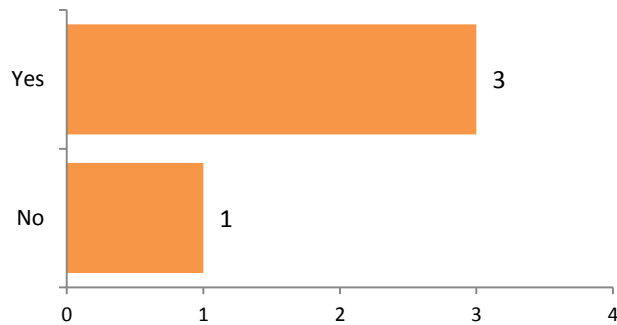


Survey question:

- Which of the following statements describe the actions you would have taken had the Energy Trust incentive and information not been available?

Grants Used for New System

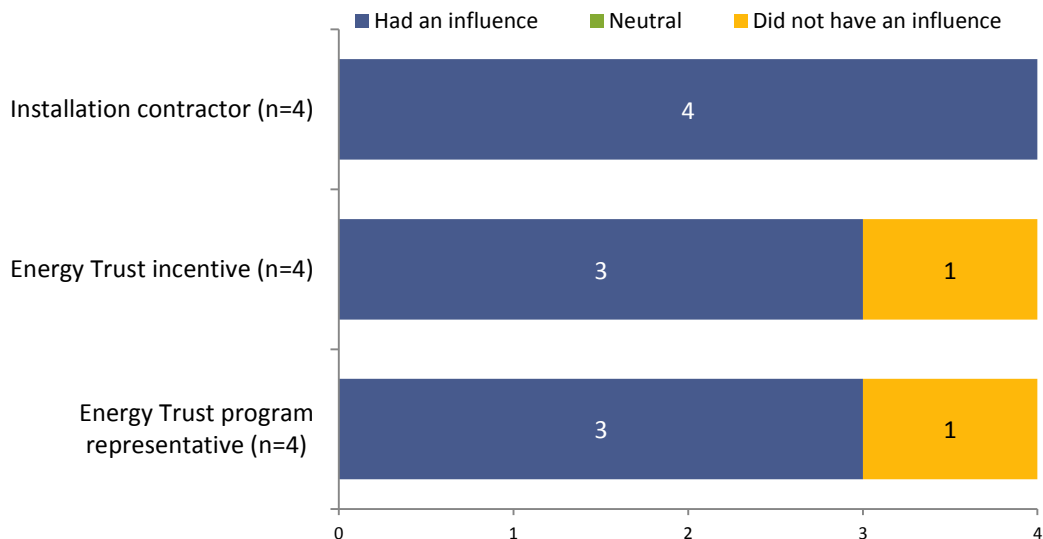
Were Grants Used? (n=4)



Survey question:

- Were any grants used to reduce the cost of your system?

Influences on Decision to Install Solar



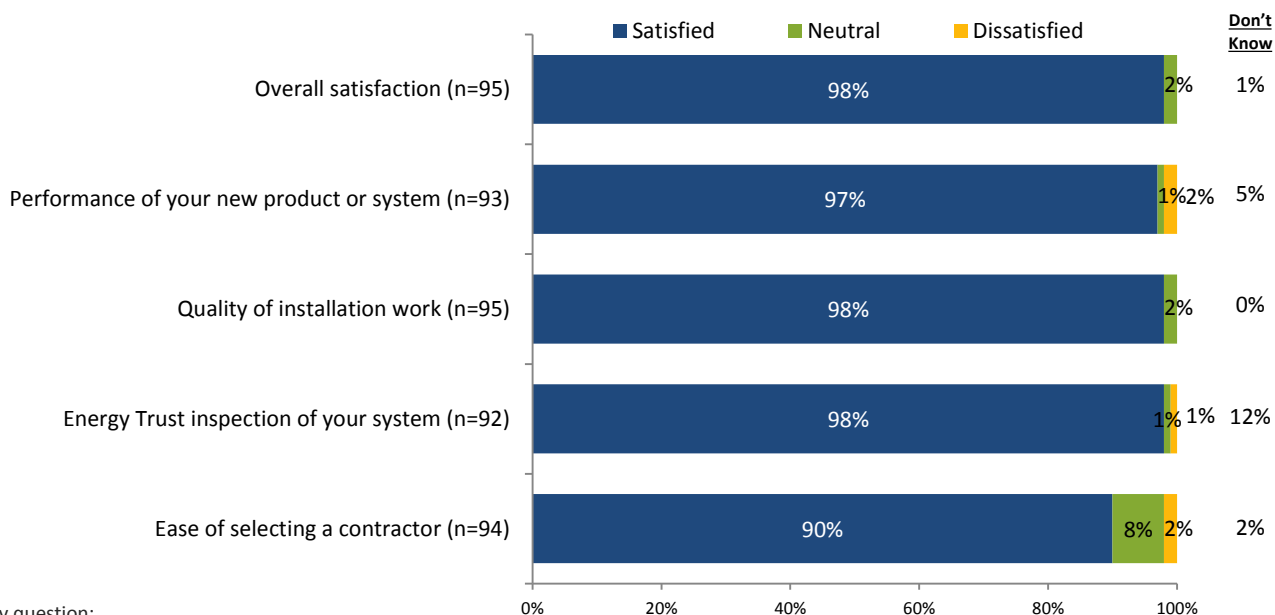
Survey question:

- How influential were the following elements on your decision to purchase your system?

Residential Solar Electric

- 98% of respondents rated their overall satisfaction a 4 or 5 out of 5 and 97% were satisfied with the performance of the system.
- Just under half of respondents had visited the website or received a brochure before having their system installed.
- 30% of respondents would not have installed the same system without Energy Trust incentives and information; 40% would have done exactly the same thing.
- Two-thirds of respondents paid for their system with cash or savings, while 17% used a loan.
- The contractor was most influential on respondents' decision to install the system, followed by Energy Trust incentives.
- 61% of respondents had heard of the feed-in-tariff prior to the start of their project.

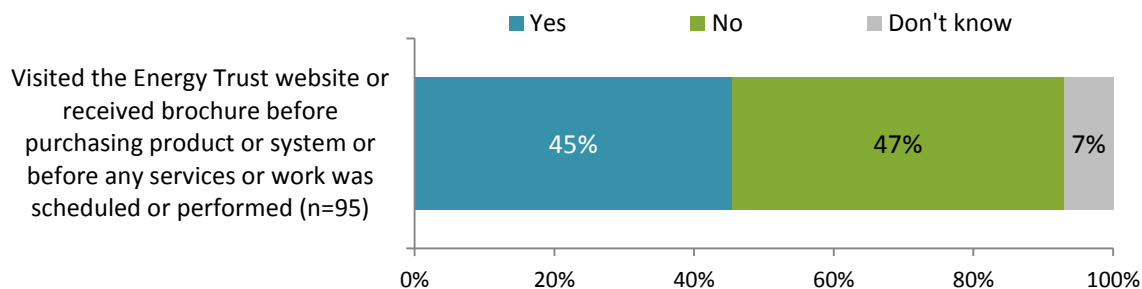
Participant Satisfaction



Survey question:

- Thinking of your participation with Energy Trust, please rate your satisfaction with each of the following elements on a 5-point scale where 5 is very satisfied and 1 is not at all satisfied.

Interactions With Energy Trust Prior to Project



Survey question:

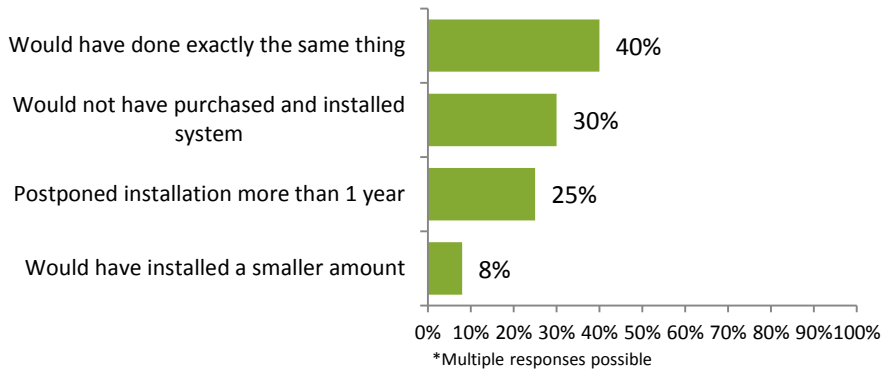
- Did you visit the Energy Trust website or receive one of their brochures before you purchased your product or system or before you had any services or work scheduled and performed?

Residential Solar Electric

Impact of Incentives and Information

Actions Would Have Taken Without Incentive or Information

(n=60)*



Have you applied for the applicable Oregon state tax credit? (n=93)	
Yes	98%
No	1%
Don't know	1%

Survey question:

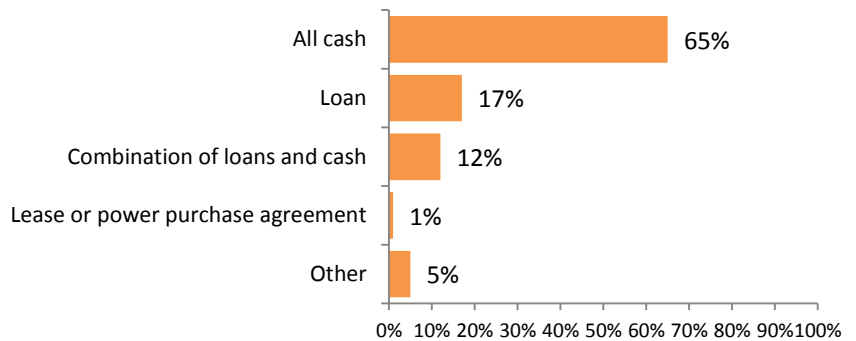
- Which of the following statements describe the actions you would have taken had the Energy Trust incentive and information not been available?

Funding for New System

Had you heard of the feed-in tariff incentive program prior to the start of your solar project? (n=95)

Yes	61%
No	28%
Don't know	11%

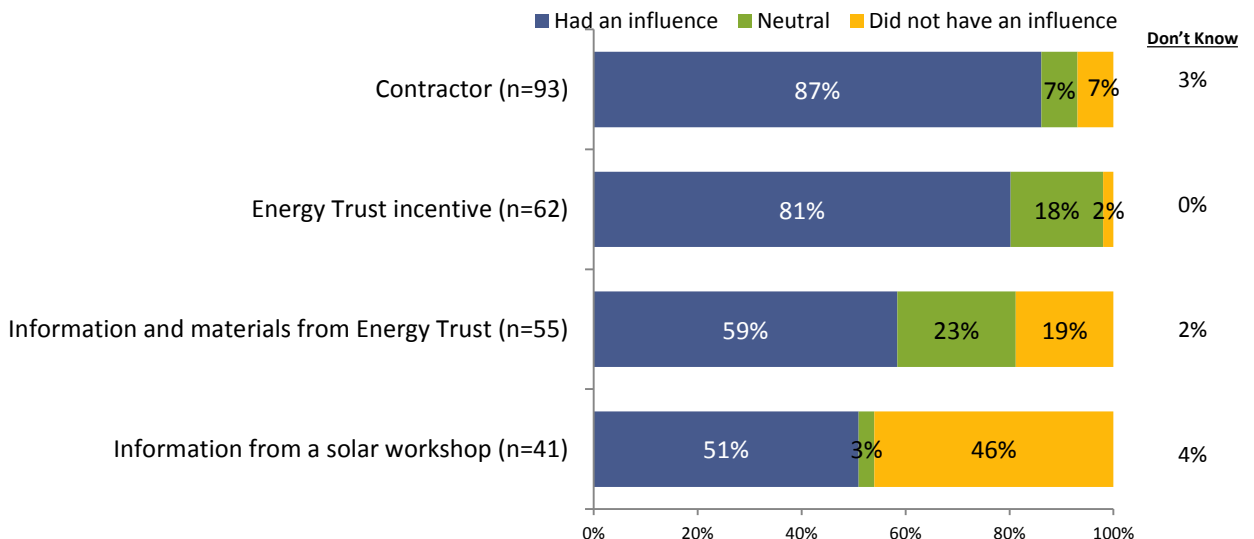
How Respondents Paid for System (n=95)



Survey questions:

- How did you pay for your system?

Influences on Decision to Install Solar



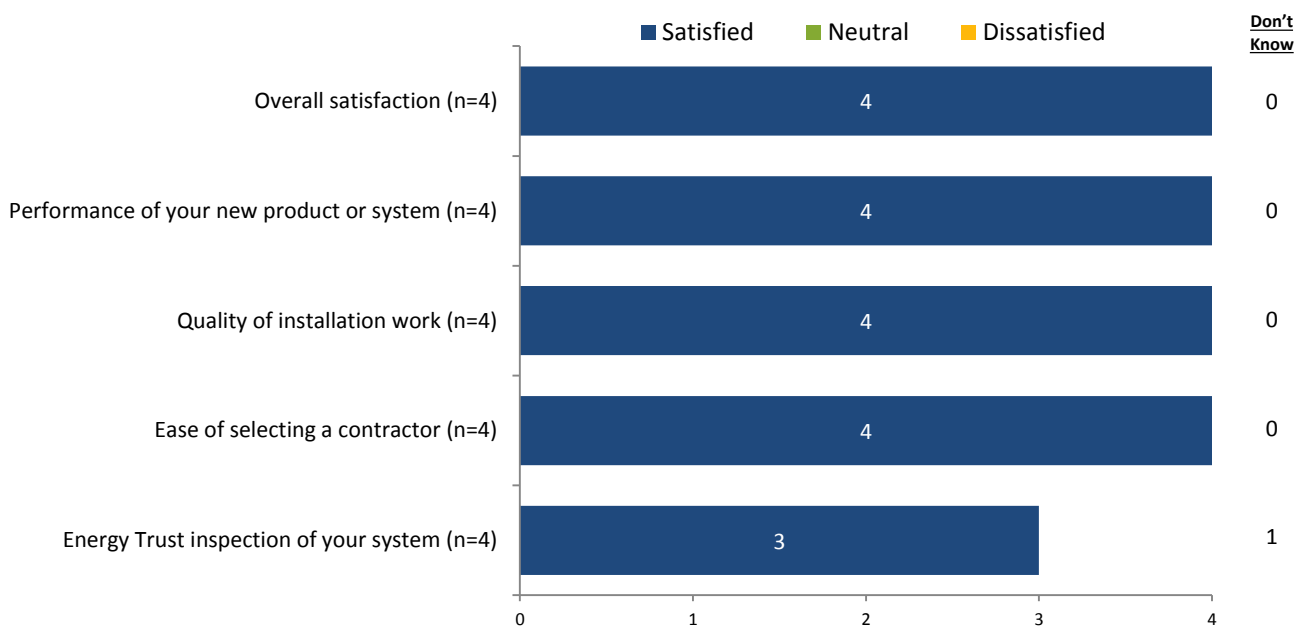
Survey question:

- How influential were the following elements on your decision to purchase your system?

Residential Solar Water Heating

- All four respondents rated their overall satisfaction a 4 or 5 out of 5, and were satisfied with all aspects of their experience.
- Two out of four respondents had visited the website or received a brochure before having their system installed.
- One of the respondents would have postponed installation more than a year without Energy Trust incentives and information, one would not have purchased and installed their system, one would have installed a smaller amount, and one would have done exactly the same thing.
- Two respondents paid for their system with cash or savings.
- The contractor and Energy Trust incentives had the most influence on respondents' decision to install the system.

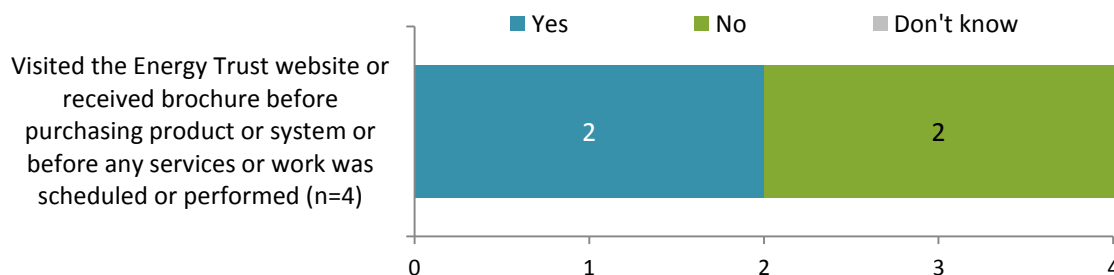
Participant Satisfaction



Survey question:

- Thinking of your participation with Energy Trust, please rate your satisfaction with each of the following elements on a 5-point scale where 5 is very satisfied and 1 is not at all satisfied.

Interactions With Energy Trust Prior to Project



Survey question:

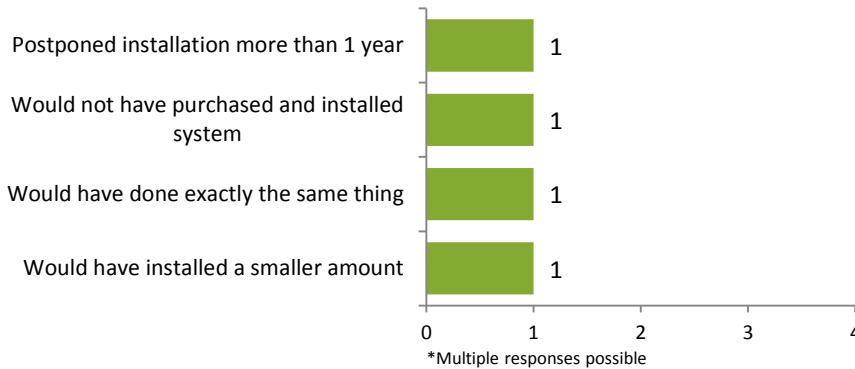
- Did you visit the Energy Trust website or receive one of their brochures before you purchased your product or system or before you had any services or work scheduled and performed?

Residential Solar Water Heating

Impact of Incentives and Information

Actions Would Have Taken Without Incentive or Information

(n=4)*



Have you or will you apply for the Oregon State Residential Energy Tax Credit? (n=4)

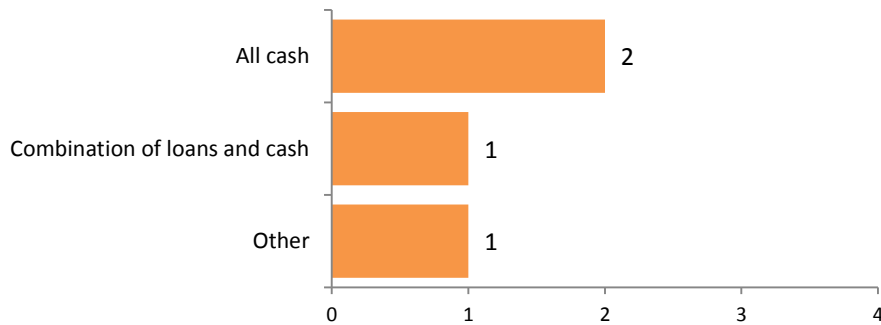
Yes	4
No	0
Don't know	0
Does not apply	0

Survey question:

- Which of the following statements describe the actions you would have taken had the Energy Trust incentive and information not been available?

Funding for New System

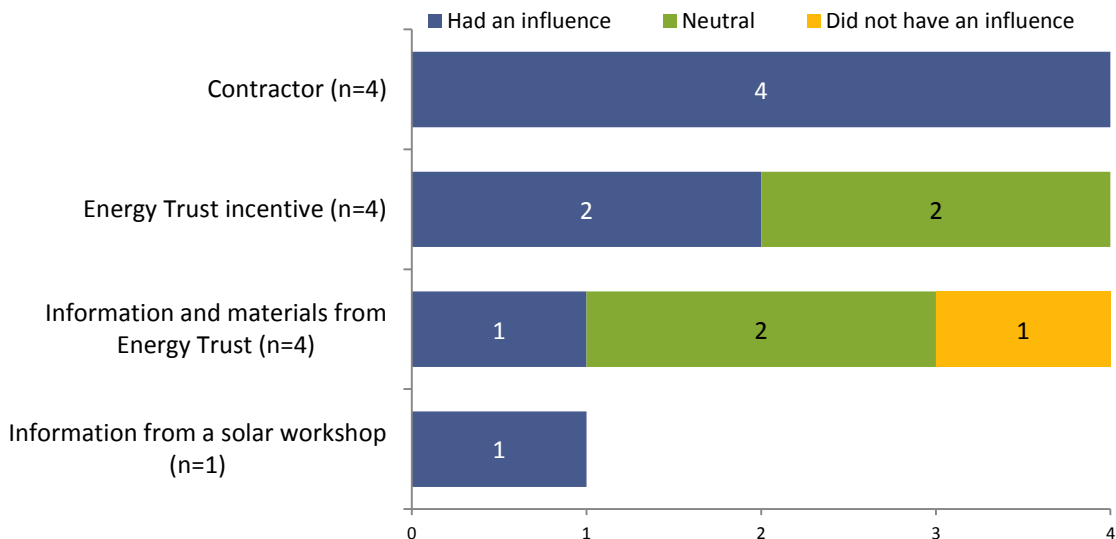
How Respondents Paid for System (n=4)



Survey question:

- How did you pay for your system?

Influences on Decision to Install Solar



Survey question:

- How influential were the following elements on your decision to purchase your system?

Home Products Summary

- For all three groups, a sufficient number of surveys were completed for the results to meet the goal of 90% confidence / 10% margin of error.
- Satisfaction for all three groups was relatively high, especially for refrigerator recycling.
- Due to an error with survey programming, free ridership information was not captured correctly between July and November 2014. The 2014 free ridership rate for refrigerator recycling (27%) remained in line with the 2013 rate (28%) and the 2014 free ridership rates and were slightly (3 percentage points) higher than 2013 numbers for clothes washers and refrigerators.

Survey Group	2015 Projects [§]	Surveys Completed	Percent Satisfied	Free Ridership
Clothes Washers	15,484	276	93%	56%
Refrigerators	2,605	177	93%	56%
Refrigerator Recycling	15,896	280	95%	27%

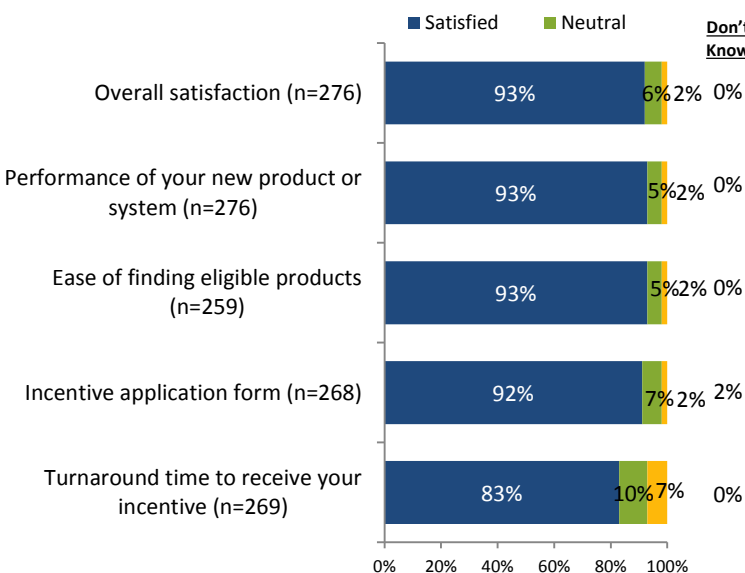
[§] Project totals for 2014 only include projects eligible for Fast Feedback, and therefore may not match other Energy Trust reports for 2014.

Clothes Washers

- 93% of respondents rated their overall satisfaction a 4 or 5 out of 5. Satisfaction with turnaround time received the lowest rating (83%).
- 28% of respondents had used the website or received a brochure before purchasing their unit.
- 80% of respondents would have bought the same unit in the absence of Energy Trust incentives and information, however, half rated the influence of the Energy Trust incentive a 4 or 5 out of 5.

Participant Satisfaction

Satisfaction with Program Elements



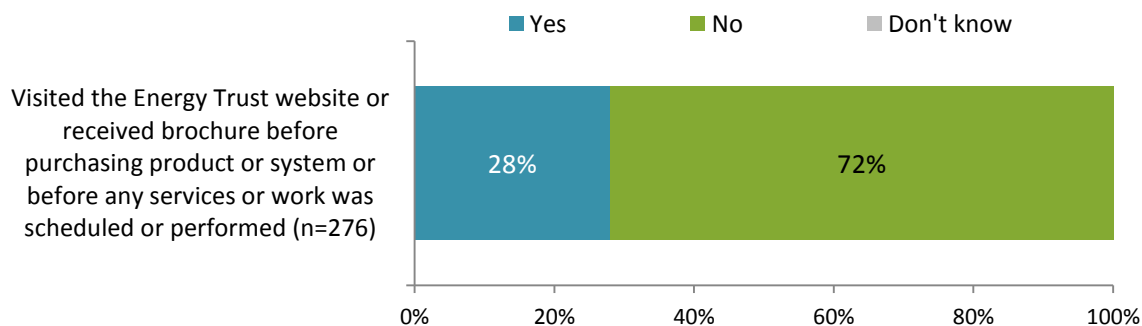
Free Ridership and Satisfaction Over Time



Survey question:

- Thinking of your participation with Energy Trust, please rate your satisfaction with each of the following elements on a 5-point scale where 5 is very satisfied and 1 is not at all satisfied.

Interactions With Energy Trust Prior to Project



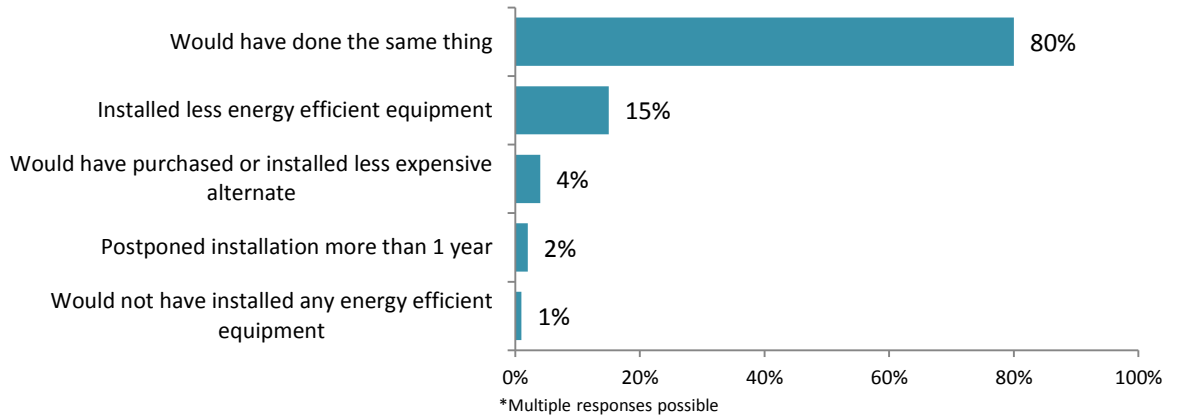
Survey question:

- Did you visit the Energy Trust website or receive one of their brochures before you purchased your product or system or before you had any services or work scheduled and performed?

Clothes Washers

Impact of Incentives and Information

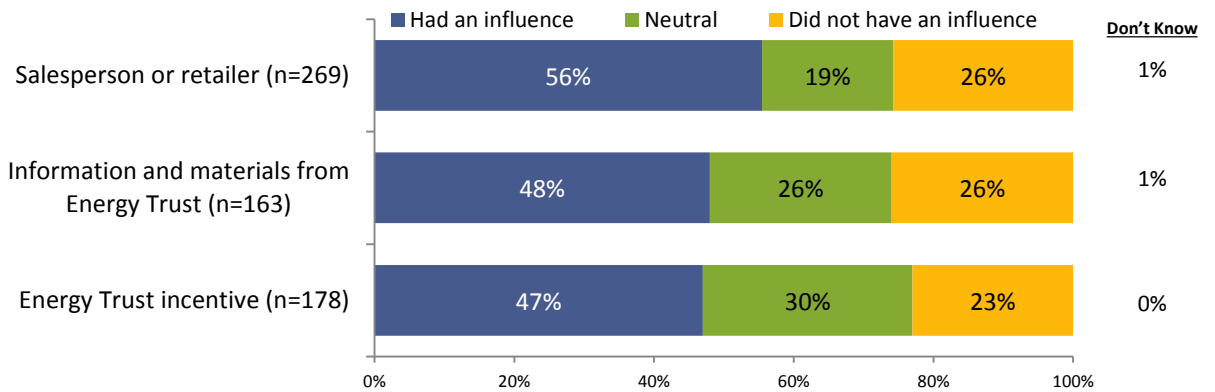
Actions Would Have Taken Without Incentive or Information (n=179)*



Survey question:

- Which of the following statements describe the actions you would have taken had the Energy Trust incentive and information not been available?

Influences on Decision to Purchase Energy Efficient Unit



Survey question:

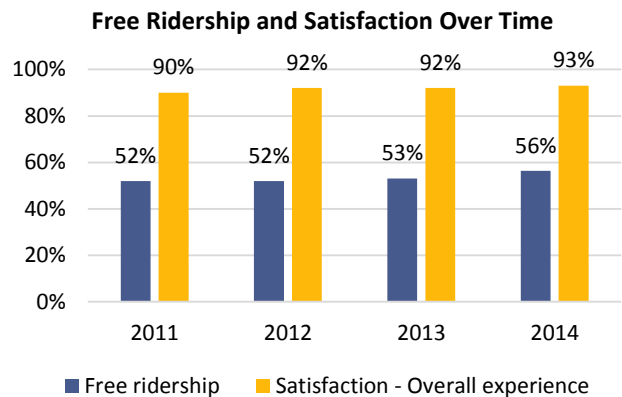
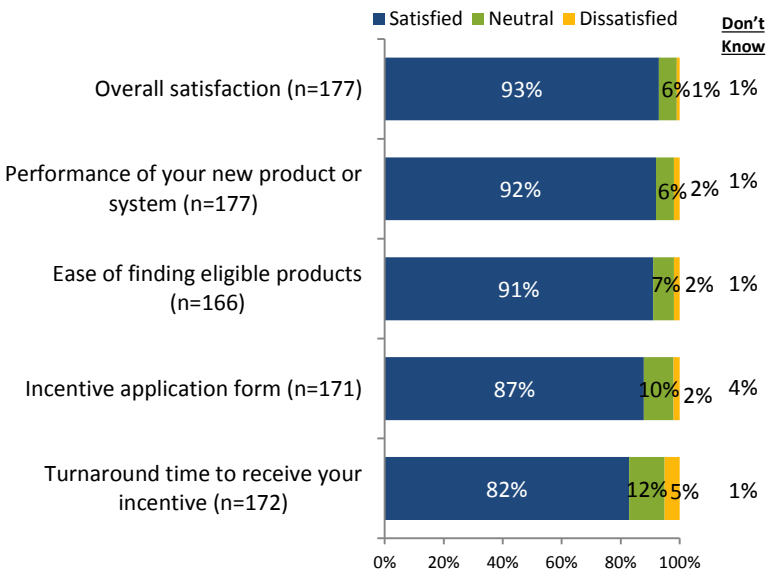
- How influential were the following elements on your decision to purchase your product?

Refrigerators

- 93% of respondents rated their overall satisfaction a 4 or 5 out of 5. 92% were satisfied with the performance of their new refrigerator and 91% of respondents were satisfied with the ease of finding eligible products.
- 83% would have gotten the same refrigerator without incentives and information from Energy Trust.
- 93% of respondents said the purchased unit was replacing an old unit. 38% had the old unit removed by the retailer that delivered their new refrigerator.

Participant Satisfaction

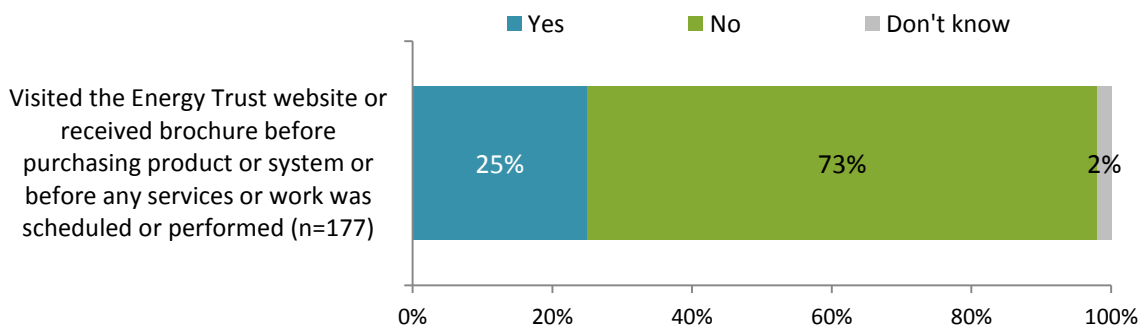
Satisfaction with Program Elements



Survey question:

- Thinking of your participation with Energy Trust, please rate your satisfaction with each of the following elements on a 5-point scale where 5 is very satisfied and 1 is not at all satisfied.

Interactions With Energy Trust Prior to Project



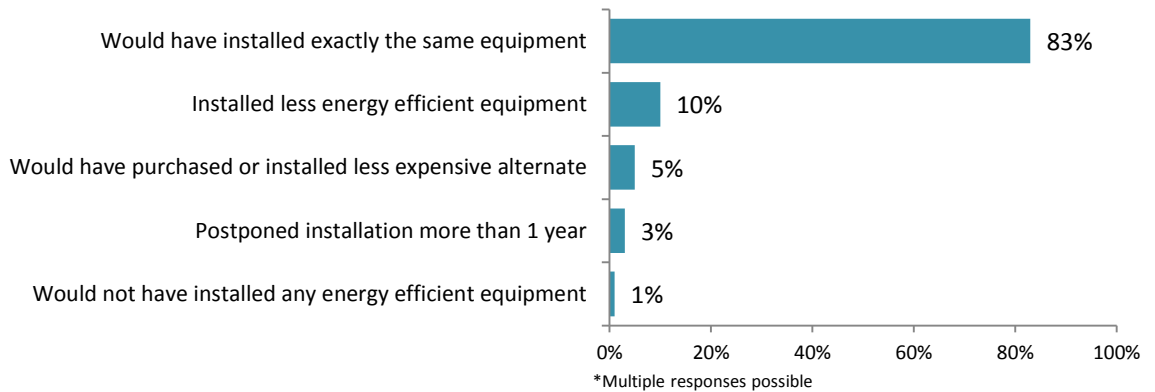
Survey question:

- Did you visit the Energy Trust website or receive one of their brochures before you purchased your product or system or before you had any services or work scheduled and performed?

Refrigerators

Impact of Incentives and Information

Actions Would Have Taken Without Incentive or Information (n=177)*

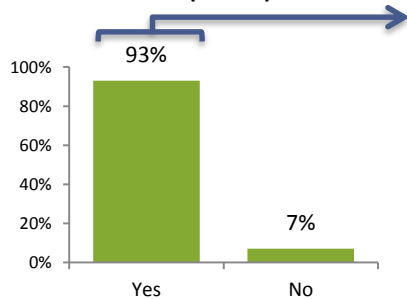


Survey question:

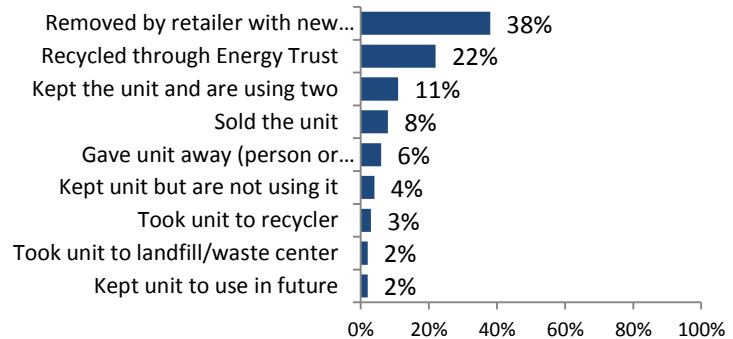
- Which of the following statements describe the actions you would have taken had the Energy Trust incentive and information not been available?

Household Refrigerator and Freezer Units

Did the refrigerator just purchased replace an old unit? (n=177)



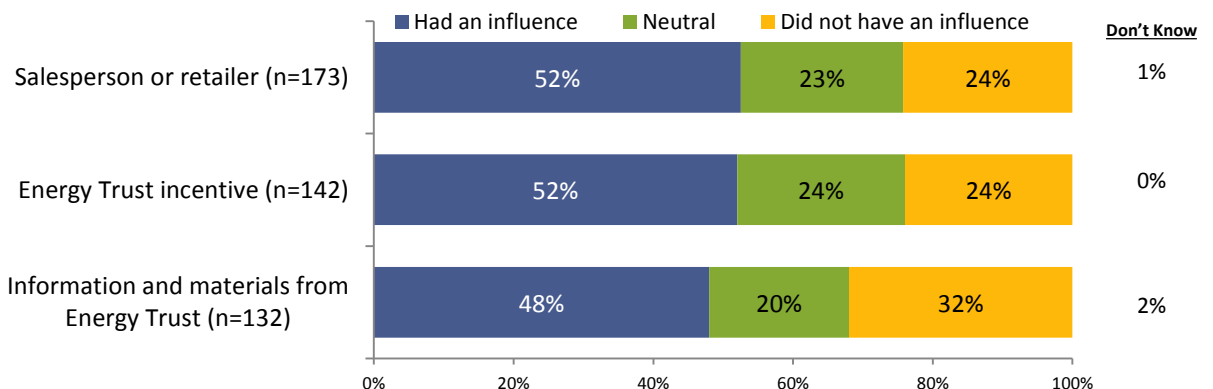
What was done with the old unit? (n=165)



Survey questions:

- Did the refrigerator you purchased replace an old unit?
- What did you do with your old unit?

Influences on Decision to Purchase Energy Efficient Unit



Survey question:

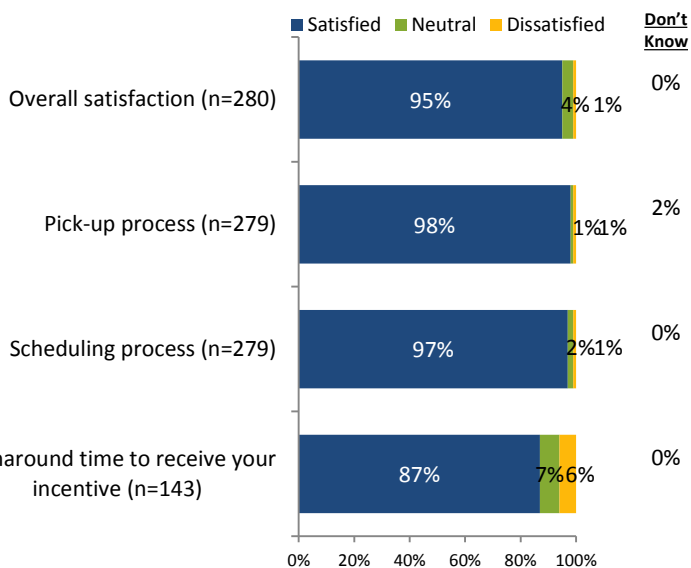
- How influential were the following elements on your decision to purchase your product?

Refrigerator Recycling

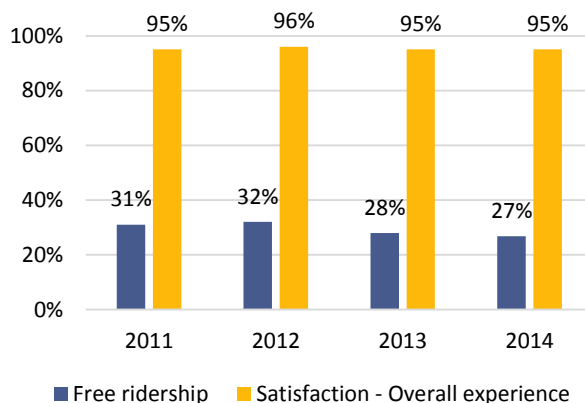
- Starting Q2 2013, the randomly selected sample of refrigerator recycling participants was supplemented with non-randomly selected customers that donated their incentive to the Oregon Food Bank. The goal was to learn more about why customers decided to donate their incentive. 48% of the 280 completed surveys in 2014 were with customers that donated their incentive.
- 95% of respondents rated their overall satisfaction a 4 or 5 out of 5. 98% were satisfied with the pick-up process and 97% were satisfied with the scheduling process.
- 60% of respondents indicated that they were replacing the old unit; the majority of those were replacing with a new unit.

Participant Satisfaction

Satisfaction with Program Elements



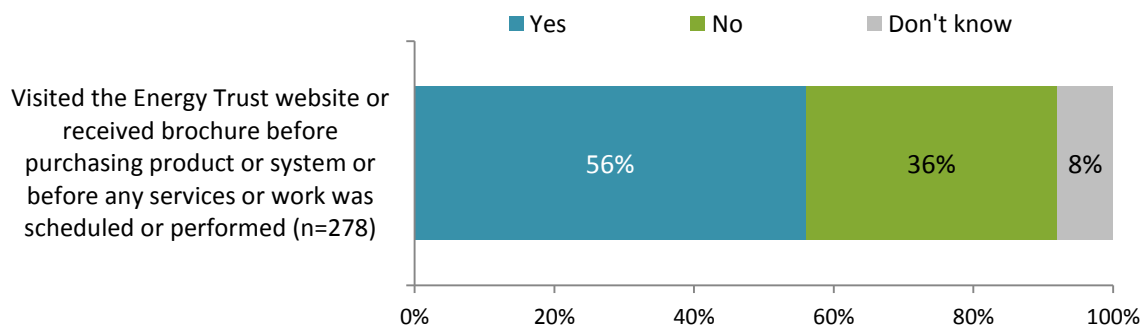
Free Ridership and Satisfaction Over Time



Survey question:

- Thinking of your participation with Energy Trust, please rate your satisfaction with each of the following elements on a 5-point scale where 5 is very satisfied and 1 is not at all satisfied.

Interactions With Energy Trust Prior to Project



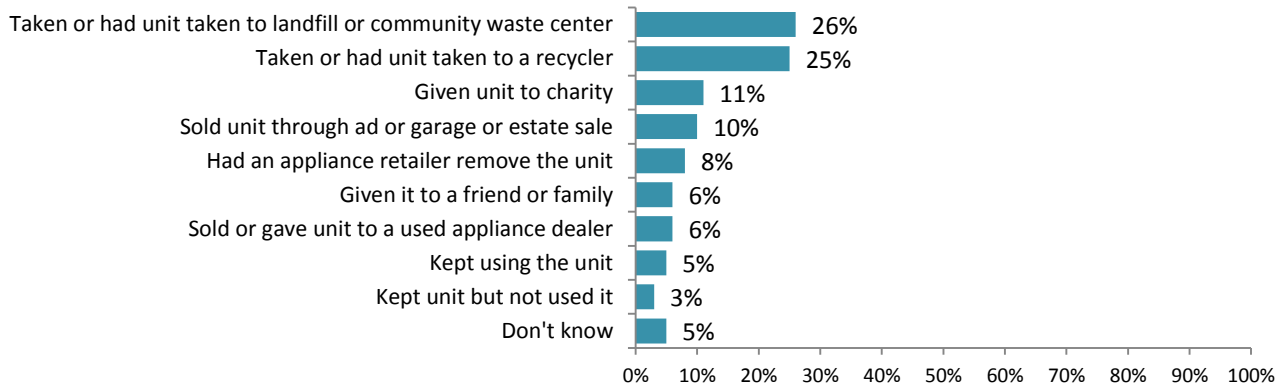
Survey question:

- Did you visit the Energy Trust website or receive one of their brochures before you purchased your product or system or before you had any services or work scheduled and performed?

Refrigerator Recycling

Impact of Incentives and Information

Actions Would Have Taken Without Incentive or Information (n=279)

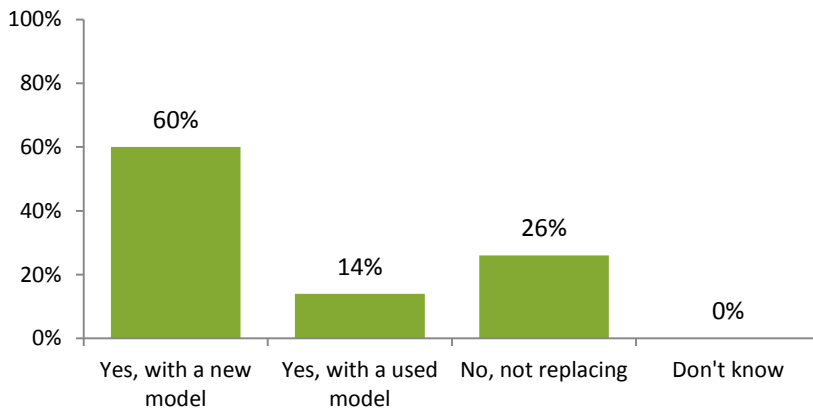


Survey question:

• Please describe the actions you would have taken had the Energy Trust fridge recycling incentive and information not been available...

Replacing the Refrigerator

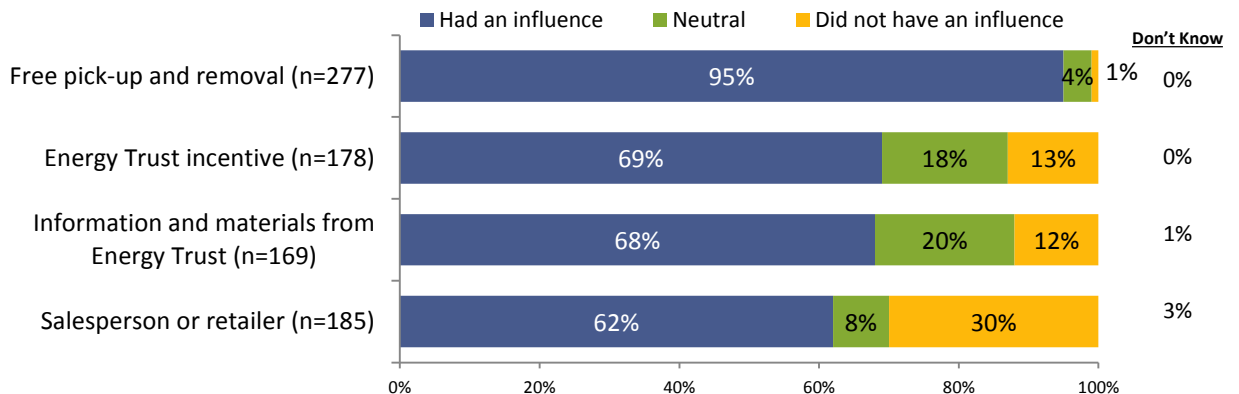
(n=279)



Survey question:

• Are you replacing, or have you replaced the refrigerator that was recycled?

Influences on Decision to Recycle Refrigerator



Survey question:

• How influential were the following elements on your decision to have services or work performed?

Existing Homes Summary

- For all groups, sample sizes were sufficient to meet the goal of 90% confidence / 10% margin of error.
- Starting in 2014, customers that received instant incentives were eligible to be surveyed through Fast Feedback.
- Overall satisfaction with Existing Homes programs varied from a high of 95% (duct insulation and ductless heat pumps) to a low of 86% (heat pumps).
- Free ridership is up five or more percentage points for water heaters and ductless heat pumps (48% and 35%, respectively, in 2014) and down seven percentage points for duct insulation (29% in 2014). Free ridership for all other measures was in largely line with 2013 estimates.
- Due to an error with survey programming, free ridership information was not captured correctly between July and November 2014. This only affected the residential survey instruments.

Survey Group	2014 Measures in Oregon [§]	Oregon Surveys Completed	2014 Measures in Washington [§]	Washington Surveys Completed	Percent Satisfied	Free Ridership [‡]
Ceiling Insulation	1,183	184	21	4	89%	37%
Floor Insulation	867	143	7	1	94%	40%
Wall Insulation	398	79	3	2	93%	43%
Duct Insulation	374	85	6	--	95%	29%
Gas Furnaces	--	--	--	38	--	--
Heat Pumps	1,067	118	--	--	86%	45%
Ductless Heat Pumps	991	122	--	--	95%	38%
Gas Fireplaces	1,224	154	64	28	89%	43%
Water Heaters	561	74	31	2	89%	48% ^α
Windows	3,154	237	74	20	90%	51%
Home Performance	226 ^α	57	--	--	90%	29%
Home Energy Review	1,616	169	63	5	88%	--
Existing Homes – Washington	--	--	--	100	89%	-- [†]
Existing Homes – Oregon	--	1,422	--	--	91%	--

Note: There are no measure-level quotas for Existing Homes – Washington.

[†] Free ridership is not calculated through Fast Feedback.

[‡] Free ridership estimates for residential measures are calculated for Oregon respondents only. However, the satisfaction numbers for Existing Homes measures include both Oregon and Washington respondents.

^α We report number of home performance projects, not measures.

^α 0.67 residential gas water heaters are part of a market transformation effort; free ridership is shown for information only and will not be the basis for programmatic decisions about the measure.

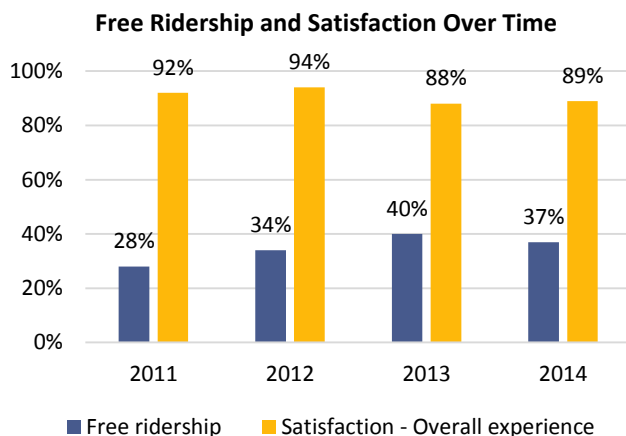
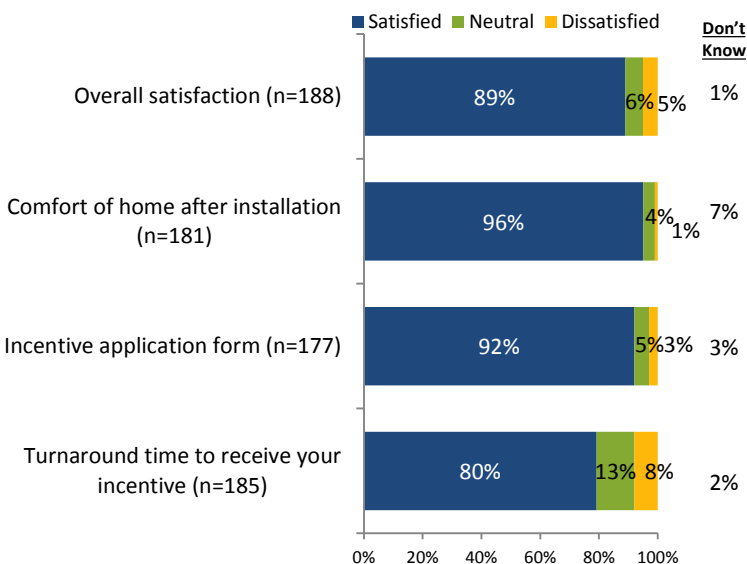
[§] Measure totals for 2014 only include projects eligible for Fast Feedback, and therefore may not match other Energy Trust reports for 2014.

Ceiling Insulation

- 89% of respondents rated their overall satisfaction a 4 or 5 out of 5. Satisfaction was lowest with the turnaround time to receive the incentive (80%), but satisfaction with comfort of home post-installation was high (rated 4 or 5 by 96% of respondents).
- 57% of respondents visited the Energy Trust website or received a brochure before installing insulation.
- 59% would have installed insulation without Energy Trust incentives and information, while 23% would have postponed the insulation and 9% would not have installed it at all.
- 89% of respondents were satisfied with their contractor; 31% consulted the approved trade ally list when choosing their contractor. 85% reported that their contractor completed some or all of the incentive paperwork for them.

Participant Satisfaction

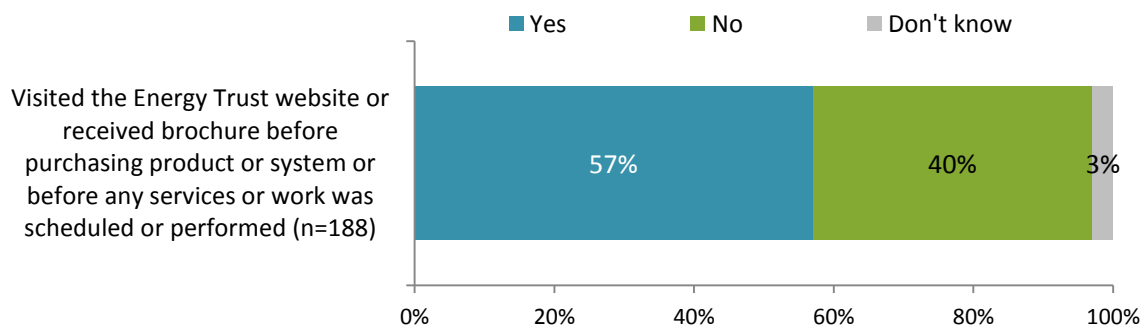
Satisfaction with Program Elements



Survey question:

- Thinking of your participation with Energy Trust, please rate your satisfaction with each of the following elements on a 5-point scale where 5 is very satisfied and 1 is not at all satisfied.

Interactions With Energy Trust Prior to Project



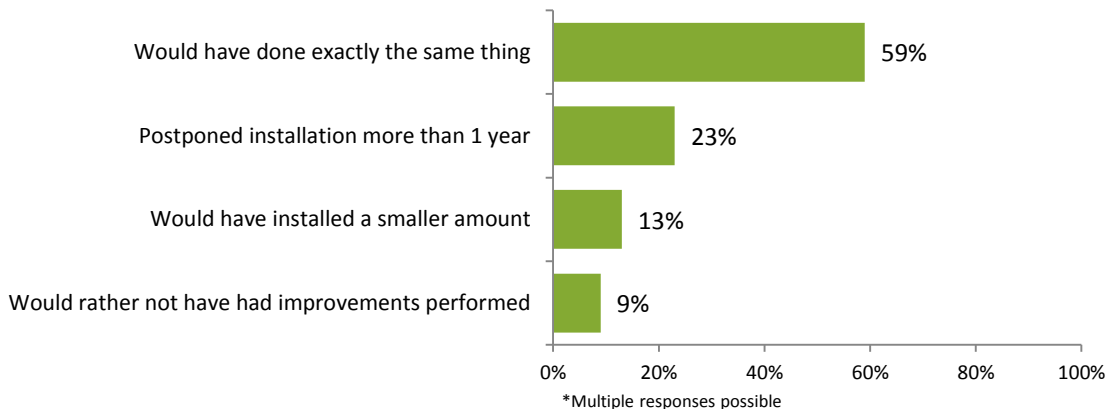
Survey question:

- Did you visit the Energy Trust website or receive one of their brochures before you purchased your product or system or before you had any services or work scheduled and performed?

Ceiling Insulation

Impact of Incentives and Information

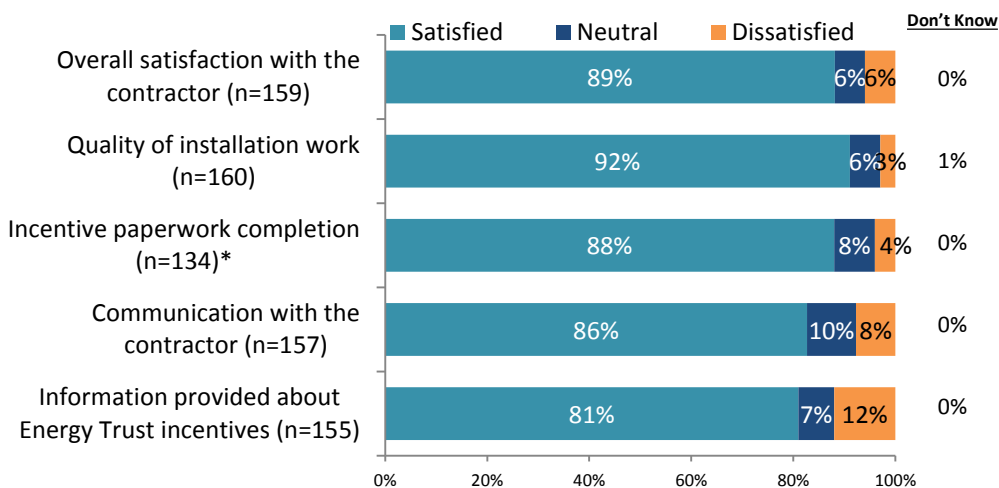
Actions Would Have Taken Without Incentive or Information (n=136)*



Survey question:

• Which of the following statements describe the actions you would have taken had the Energy Trust incentive and information not been available?

Satisfaction With Contractor



*Only asked of respondents that said their contractor completed paperwork

Did you consider Energy Trust's list of approved trade allies when selecting your contractor? (n=162)

Yes	31%
No	65%
Don't know	4%

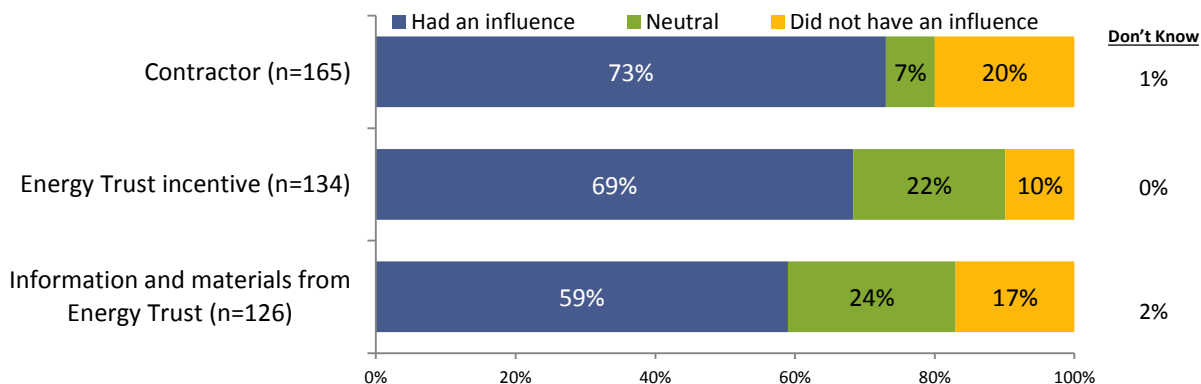
Did your contractor complete some or all of the incentive paperwork for you? (n=159)

Yes	85%
No	12%
Don't know	3%

Survey question:

• Thinking of your experience with your contractor, please indicate the number that corresponds to your satisfaction with the following service elements, with 1 indicating not at all satisfied and 5 indicating very satisfied.

Influences on Decision to Have Services or Work Performed



Survey question:

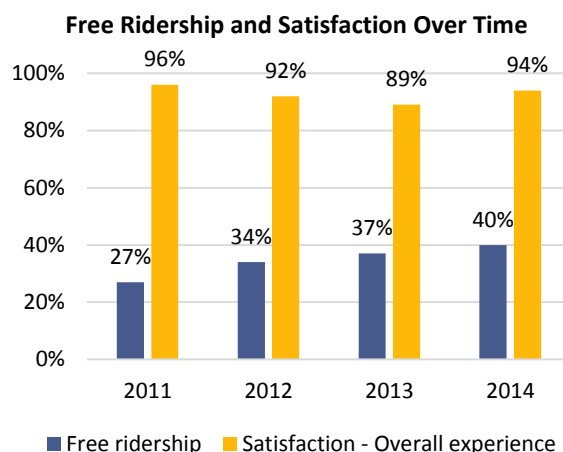
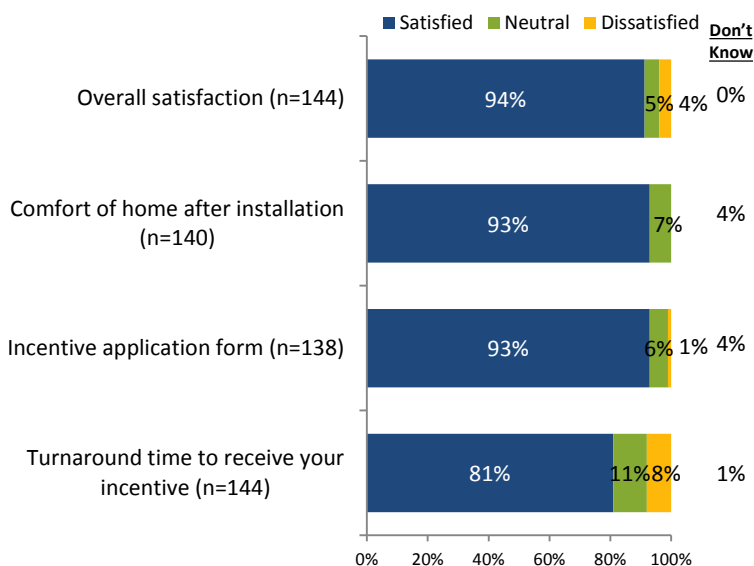
• How influential were the following elements on your decision to have services or work performed?

Floor Insulation

- 94% of respondents rated their overall satisfaction a 4 or 5 out of 5.
- 94% of respondents were satisfied with their contractor; 36% consulted the approved trade ally list when choosing their contractor.
- 51% of respondents visited the website or received a brochure before having floor insulation installed.
- 61% would have installed insulation without Energy Trust incentives and information; 20% would have postponed installation for at least a year.
- The contractor was most influential in respondents' decision to have floor insulation installed (rated a 4 or 5 by 81% of respondents).

Participant Satisfaction

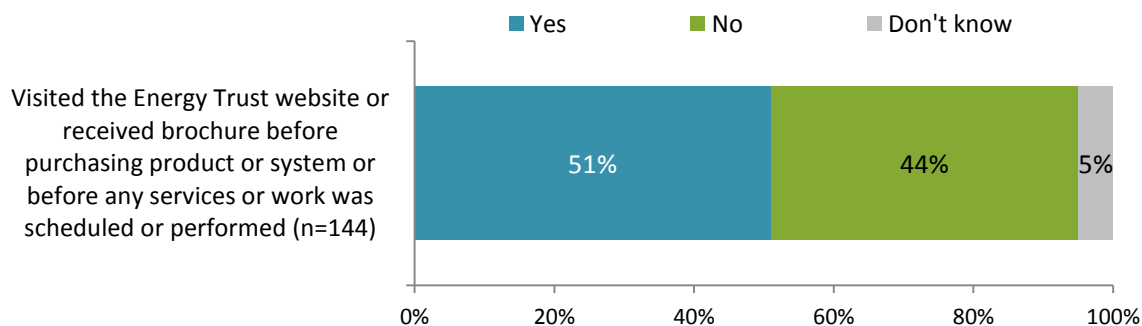
Satisfaction with Program Elements



Survey question:

- Thinking of your participation with Energy Trust, please rate your satisfaction with each of the following elements on a 5-point scale where 5 is very satisfied and 1 is not at all satisfied.

Interactions With Energy Trust Prior to Project



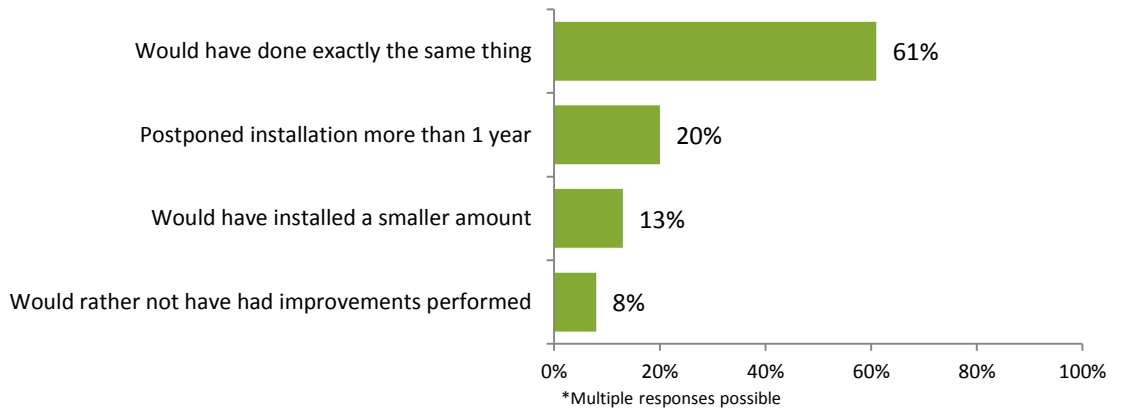
Survey question:

- Did you visit the Energy Trust website or receive one of their brochures before you purchased your product or system or before you had any services or work scheduled and performed?

Floor Insulation

Impact of Incentives and Information

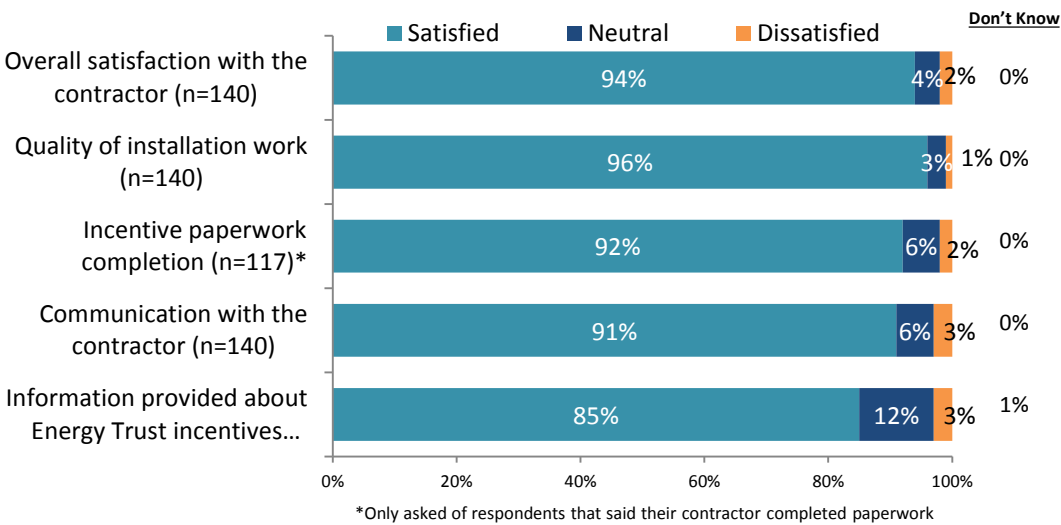
Actions Would Have Taken Without Incentive or Information (n=111)*



Survey question:

• Which of the following statements describe the actions you would have taken had the Energy Trust incentive and information not been available?

Satisfaction With Contractor



Did you consider Energy Trust's list of approved trade allies when selecting your contractor? (n=140)

Yes	36%
No	63%
Don't know	1%

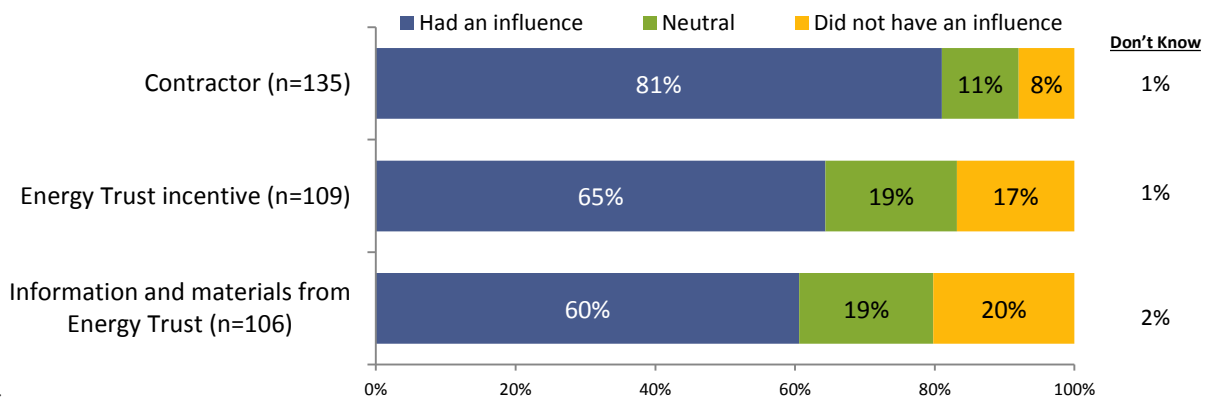
Did your contractor complete some or all of the incentive paperwork for you? (n=137)

Yes	86%
No	12%
Don't know	2%

Survey question:

• Thinking of your experience with your contractor, please indicate the number that corresponds to your satisfaction with the following service elements, with 1 indicating not at all satisfied and 5 indicating very satisfied.

Influences on Decision to Have Services or Work Performed



Survey question:

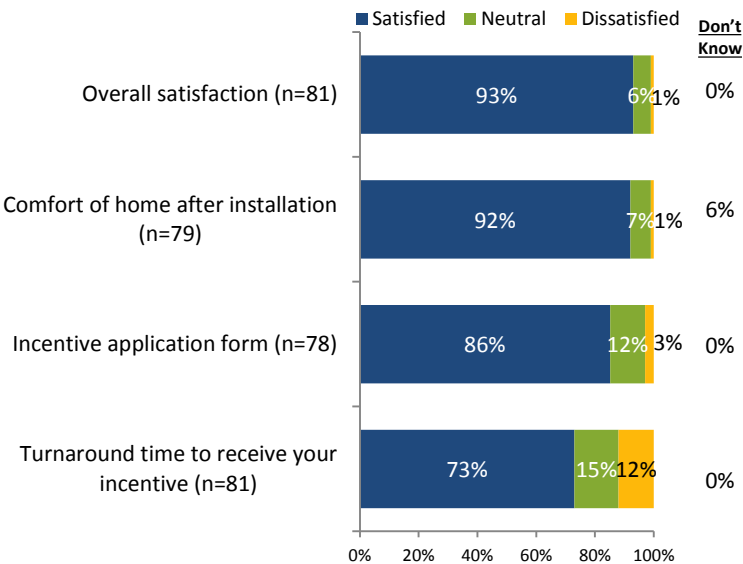
• How influential were the following elements on your decision to purchase your product or system or have services or work performed?

Wall Insulation

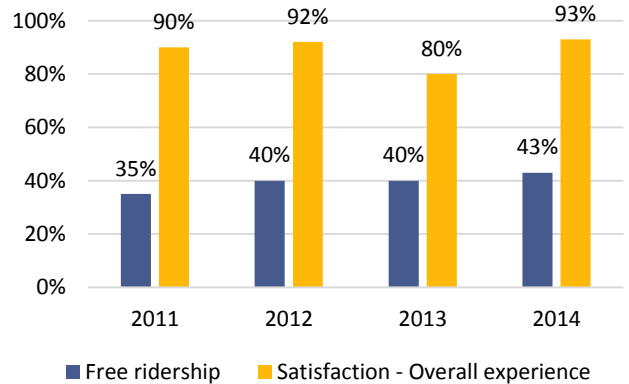
- 93% of respondents rated their overall satisfaction a 4 or 5 out of 5.
- 86% of respondents were satisfied with their contractor; 36% consulted the approved trade ally list when choosing their contractor.
- 64% of respondents visited the website or received a brochure before having wall insulation installed.
- 61% reported that they would have installed insulation without Energy Trust incentives and information.
- The contractor was most influential in respondents' decision to have wall insulation installed (rated a 4 or 5 by 63% of respondents).

Participant Satisfaction

Satisfaction with Program Elements



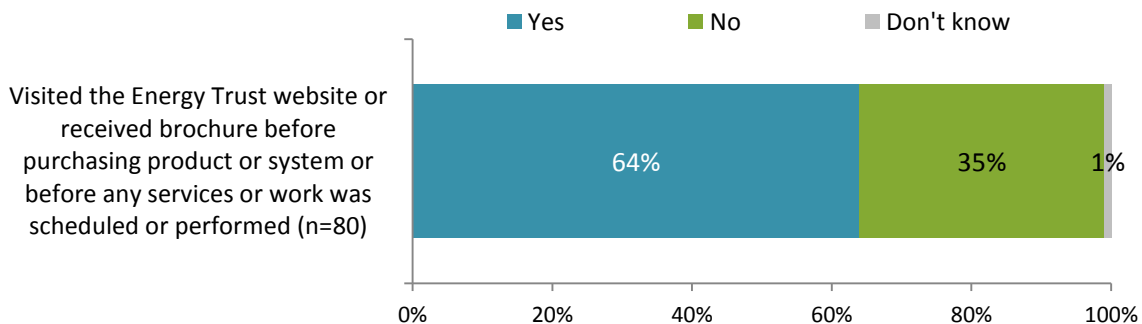
Free Ridership and Satisfaction Over Time



Survey question:

- Thinking of your participation with Energy Trust, please rate your satisfaction with each of the following elements on a 5-point scale where 5 is very satisfied and 1 is not at all satisfied.

Interactions With Energy Trust Prior to Project



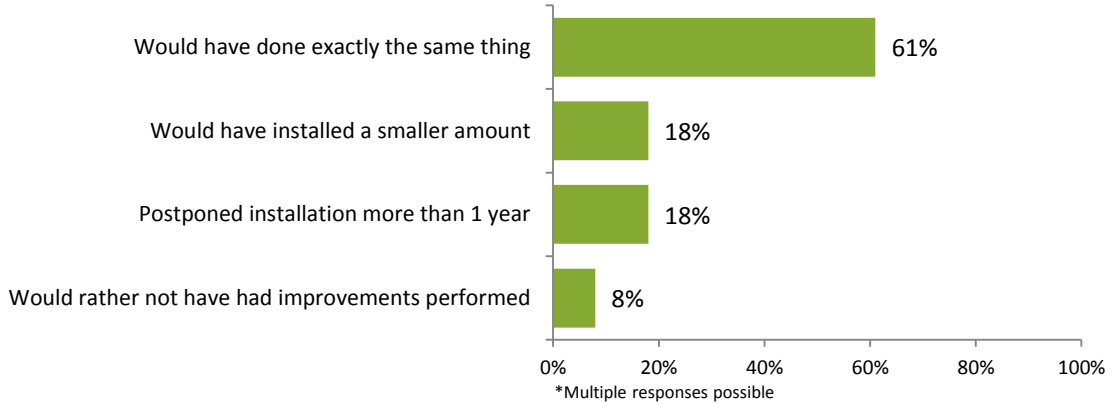
Survey question:

- Did you visit the Energy Trust website or receive one of their brochures before you purchased your product or system or before you had any services or work scheduled and performed?

Wall Insulation

Impact of Incentives and Information

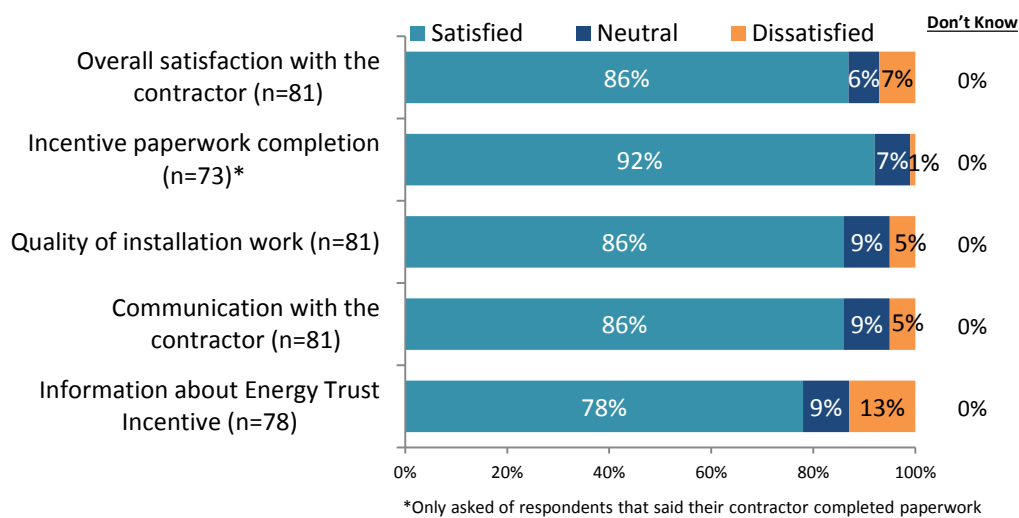
Actions Would Have Taken Without Incentive or Information (n=61)*



Survey question:

- Which of the following statements describe the actions you would have taken had the Energy Trust incentive and information not been available?

Satisfaction With Contractor



Did you consider Energy Trust's list of approved trade allies when selecting your contractor? (n=81)

Yes	36%
No	57%
Don't know	7%

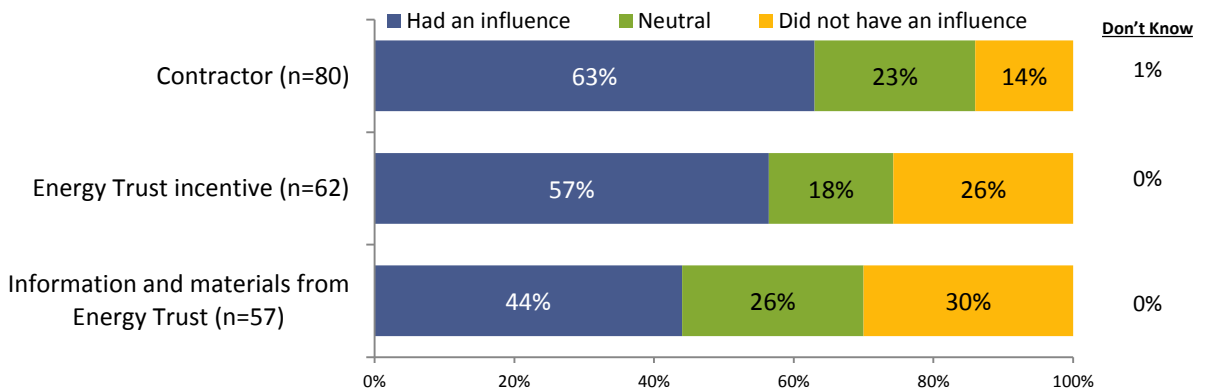
Did your contractor complete some or all of the incentive paperwork for you? (n=81)

Yes	90%
No	10%
Don't know	0%

Survey question:

- Thinking of your experience with your contractor, please indicate the number that corresponds to your satisfaction with the following service elements, with 1 indicating not at all satisfied and 5 indicating very satisfied.

Influences on Decision to Have Services or Work Performed



Survey question:

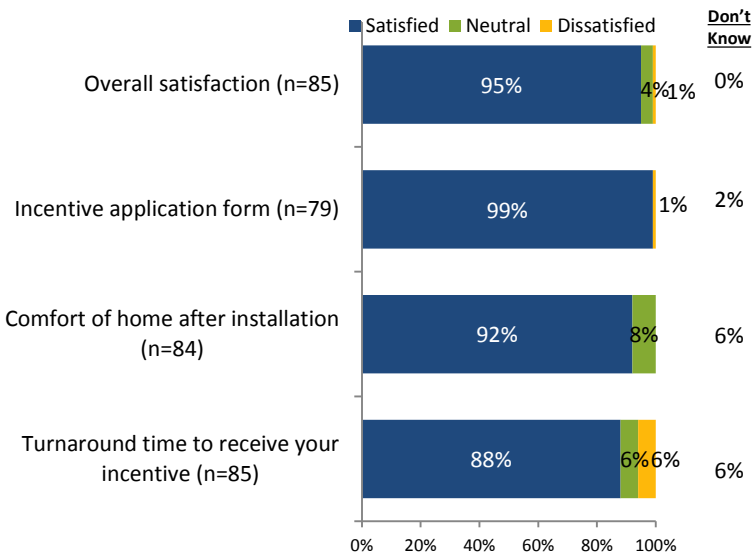
- How influential were the following elements on your decision to have services or work performed?

Duct Insulation

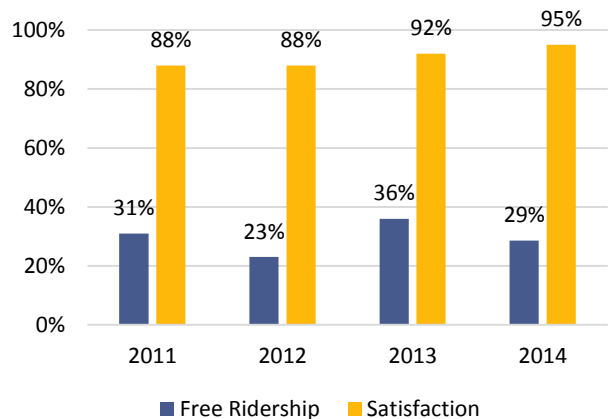
- 95% of respondents rated their overall satisfaction a 4 or 5 out of 5.
- 96% of respondents were satisfied with their contractor; 42% consulted the approved trade ally list when choosing their contractor.
- 46% reported that they would have installed insulation without Energy Trust incentives and information.
- The contractor was most influential in respondents' decision to have duct insulation installed (rated a 4 or 5 by 87% of respondents).
- Free ridership for duct insulation in 2014 was lower than in 2013 (36% vs. 29%).

Participant Satisfaction

Satisfaction with Program Elements



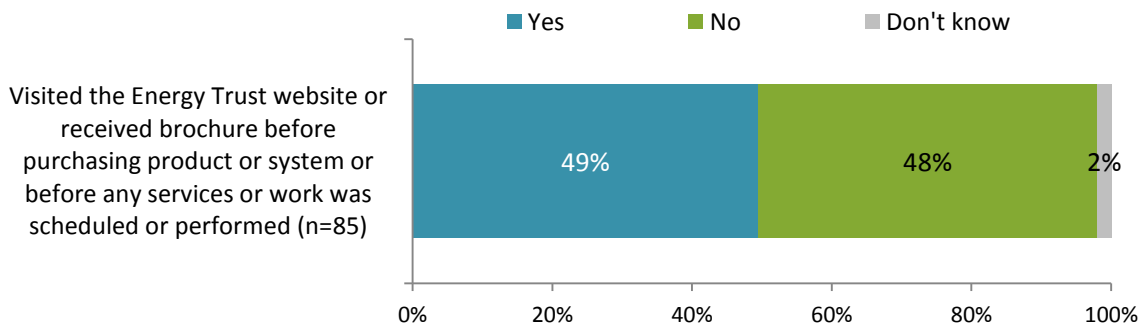
Free Ridership and Satisfaction Over Time



Survey question:

- Thinking of your participation with Energy Trust, please rate your satisfaction with each of the following elements on a 5-point scale where 5 is very satisfied and 1 is not at all satisfied.

Interactions With Energy Trust Prior to Project



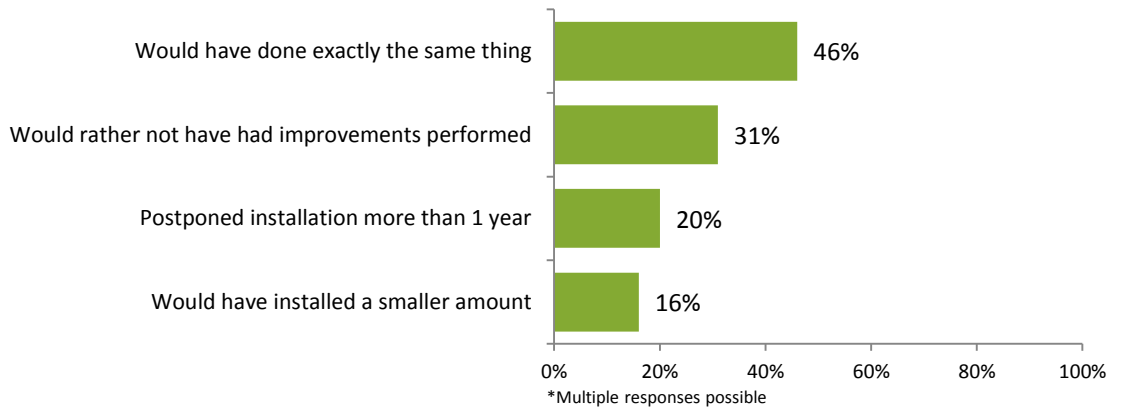
Survey question:

- Did you visit the Energy Trust website or receive one of their brochures before you purchased your product or system or before you had any services or work scheduled and performed?

Duct Insulation

Impact of Incentives and Information

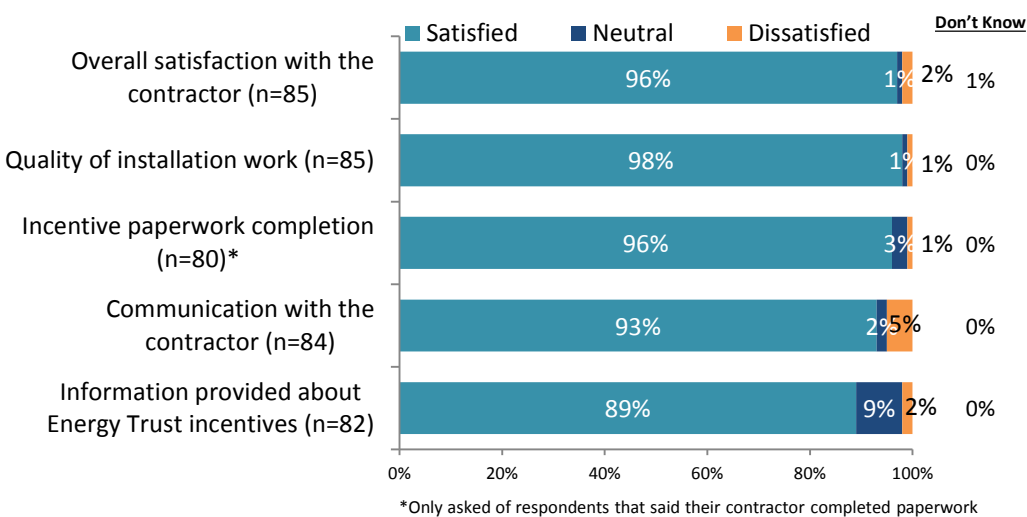
Actions Would Have Taken Without Incentive or Information (n=61)*



Survey question:

- Which of the following statements describe the actions you would have taken had the Energy Trust incentive and information not been available?

Satisfaction With Contractor



Did you consider Energy Trust's list of approved trade allies when selecting your contractor? (n=85)

Yes	42%
No	53%
Don't know	5%

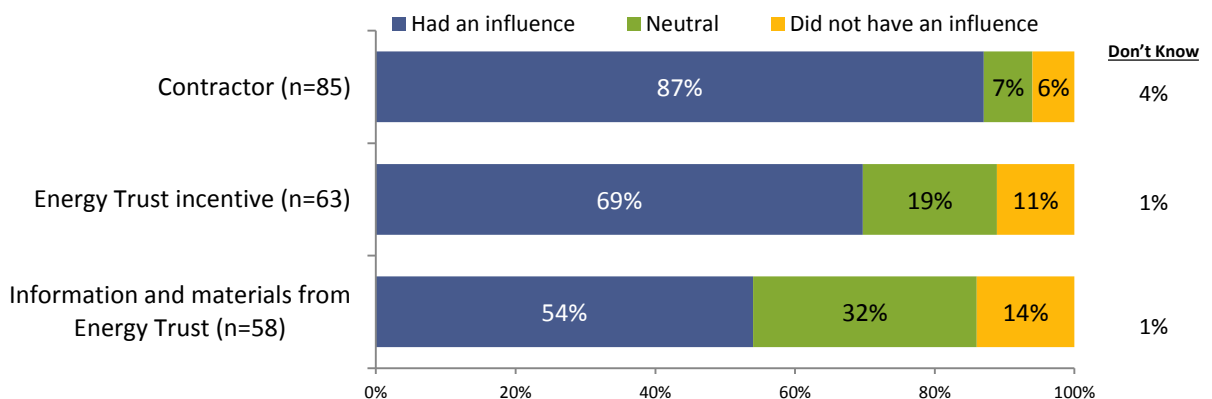
Did your contractor complete some or all of the incentive paperwork for you? (n=85)

Yes	94%
No	5%
Don't know	1%

Survey question:

- Thinking of your experience with your contractor, please indicate the number that corresponds to your satisfaction with the following service elements, with 1 indicating not at all satisfied and 5 indicating very satisfied.

Influences on Decision to Have Services or Work Performed



Survey question:

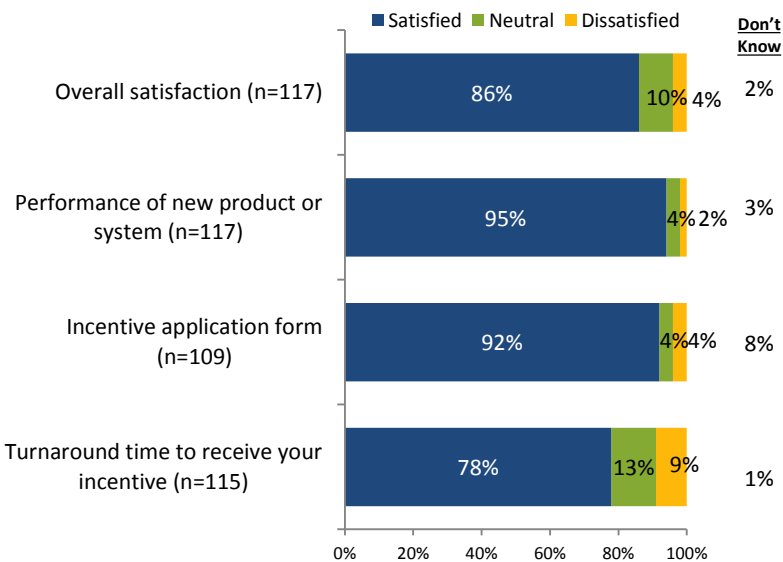
- How influential were the following elements on your decision to have services or work performed?

Heat Pumps

- 86% of respondents rated their overall satisfaction a 4 or 5 out of 5.
- 29% of respondents visited the website or received a brochure before installing their heat pump.
- 62% of respondents would have installed the same heat pump in the absence of Energy Trust incentives and information; the contractor had the most influence on respondents' decision to install the heat pump (80% rating a 4 or 5 out of 5).
- 92% of respondents were satisfied with their contractor; 24% consulted the approved trade ally list when choosing their contractor.

Participant Satisfaction

Satisfaction with Program Elements



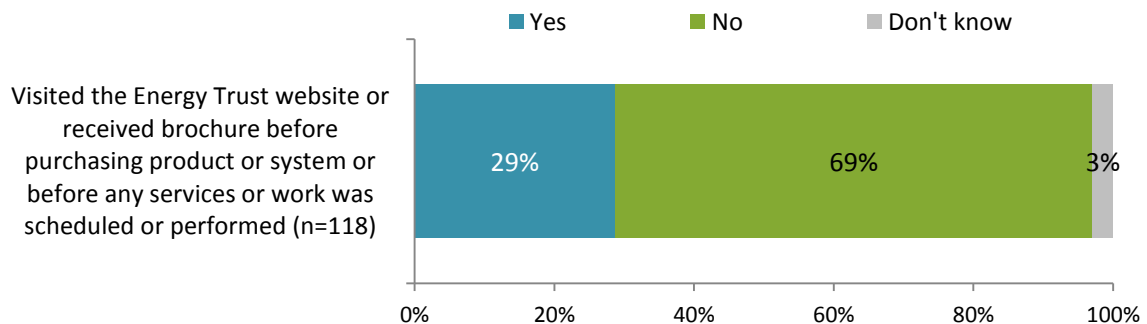
Free Ridership and Satisfaction Over Time



Survey question:

- Thinking of your participation with Energy Trust, please rate your satisfaction with each of the following elements on a 5-point scale where 5 is very satisfied and 1 is not at all satisfied.

Interactions With Energy Trust Prior to Project



Survey question:

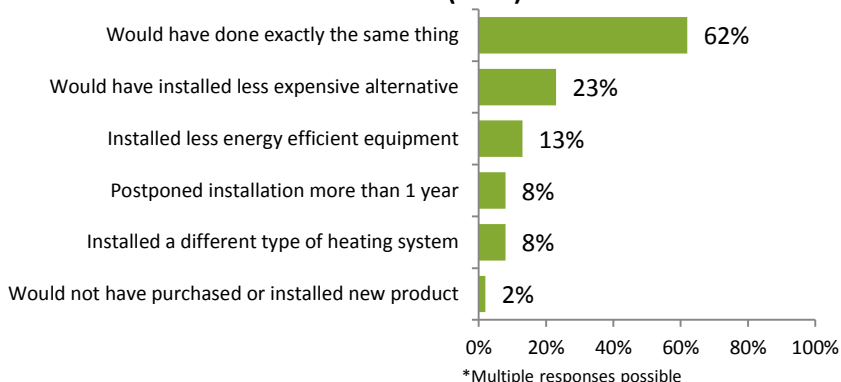
- Did you visit the Energy Trust website or receive one of their brochures before you purchased your product or system or before you had any services or work scheduled and performed?

Heat Pumps

Impact of Incentives and Information

Actions Would Have Taken Without Incentive or Information

(n=90)*



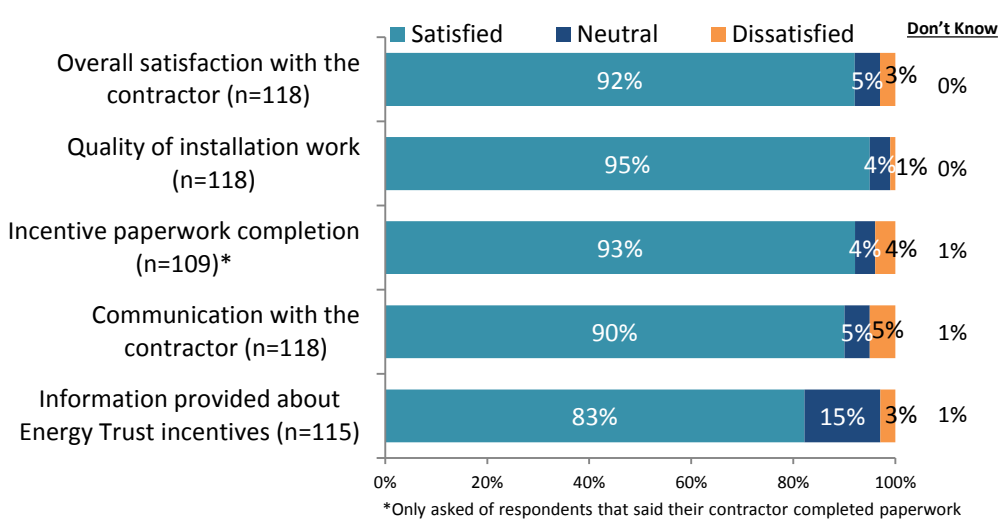
Have you or will you apply for the Oregon State Residential Energy Tax Credit? (n=116)

Yes	77%
No	9%
Don't know	9%
Not aware of credit	4%

Survey question:

- Which of the following statements describe the actions you would have taken had the Energy Trust incentive and information not been available?

Satisfaction With Contractor



Did you consider Energy Trust's list of approved trade allies when selecting your contractor? (n=118)

Yes	24%
No	75%
Don't know	2%

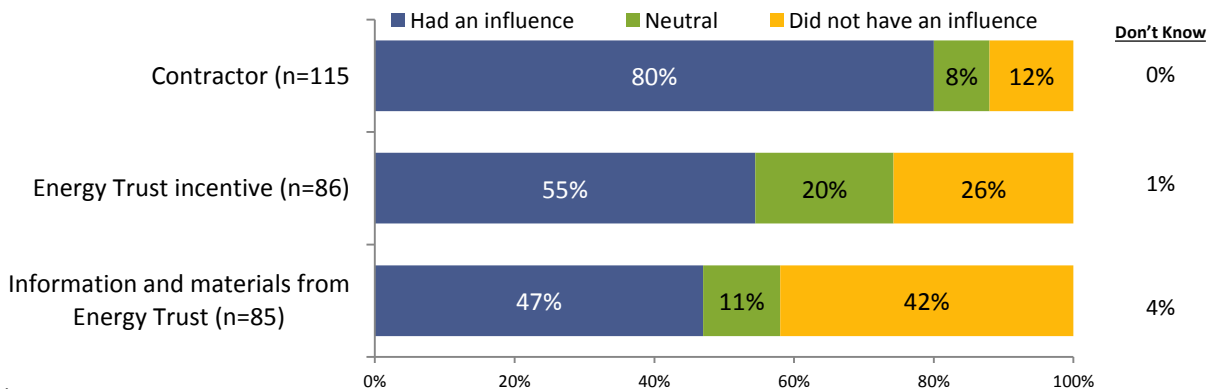
Did your contractor complete some or all of the incentive paperwork for you? (n=115)

Yes	95%
No	5%
Don't know	0%

Survey question:

- Thinking of your experience with your contractor, please indicate the number that corresponds to your satisfaction with the following service elements, with 1 indicating not at all satisfied and 5 indicating very satisfied.

Influences on Decision to Have Services or Work Performed



Survey question:

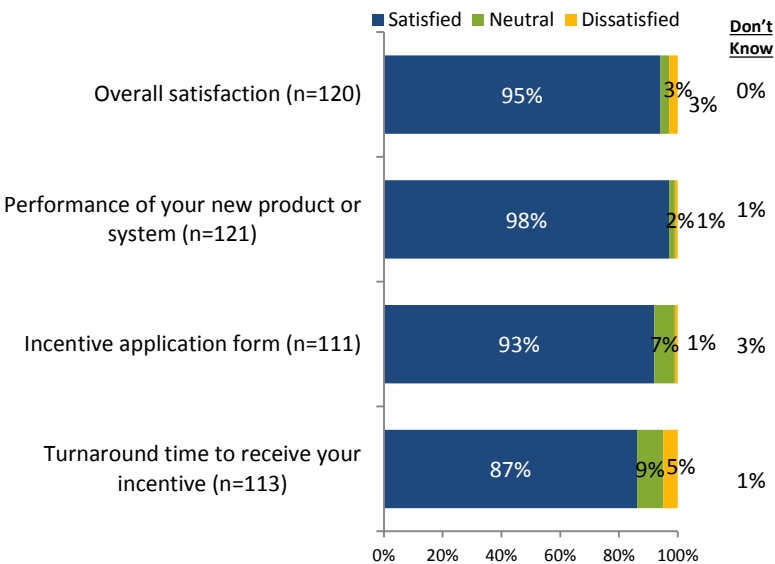
- How influential were the following elements on your decision to have services or work performed?

Ductless Heat Pumps

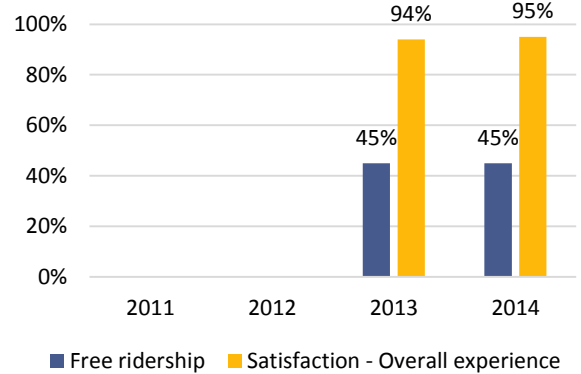
- 95% of respondents rated their overall satisfaction a 4 or 5 out of 5.
- 57% would have installed the same ductless heat pump in the absence of Energy Trust incentives and information.
- The contractor was most influential on the decision to install the ductless heat pump (88% rating a 4 or 5 out of 5).
- 96% of respondents were satisfied with their contractor; 37% consulted the approved trade ally list when choosing their contractor.

Participant Satisfaction

Satisfaction with Program Elements



Free Ridership and Satisfaction Over Time

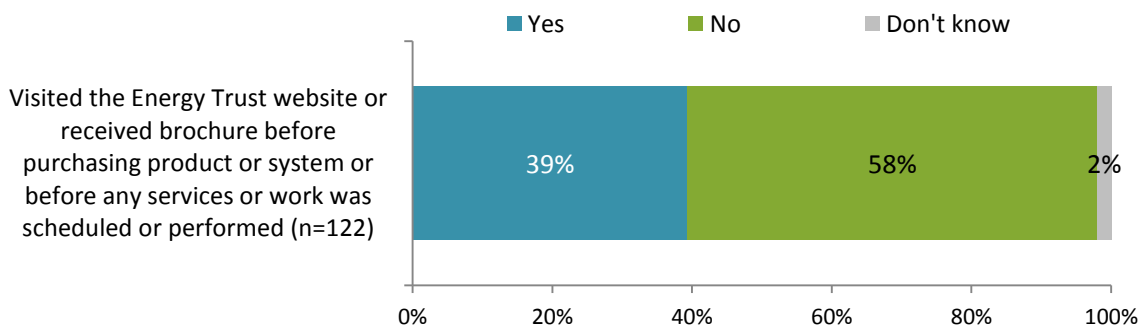


Note: Ductless heat pumps were not surveyed as part of Fast Feedback until 2013, which is why there is no free ridership or satisfaction information available for 2011 or 2012.

Survey question:

- Thinking of your participation with Energy Trust, please rate your satisfaction with each of the following elements on a 5-point scale where 5 is very satisfied and 1 is not at all satisfied.

Interactions With Energy Trust Prior to Project



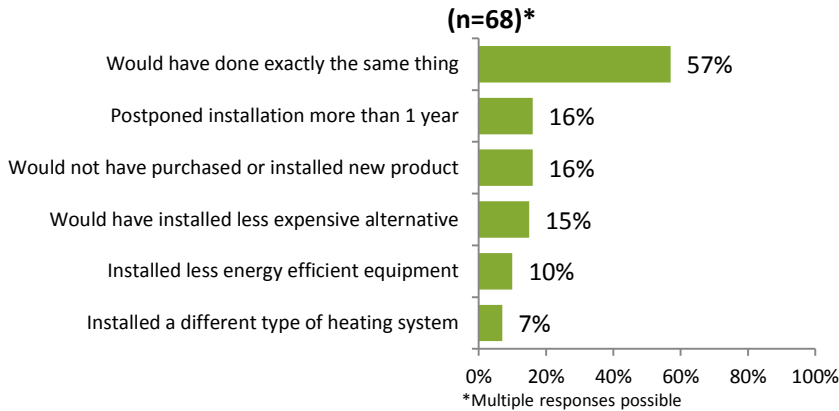
Survey question:

- Did you visit the Energy Trust website or receive one of their brochures before you purchased your product or system or before you had any services or work scheduled and performed?

Ductless Heat Pumps

Impact of Incentives and Information

Actions Would Have Taken Without Incentive or Information



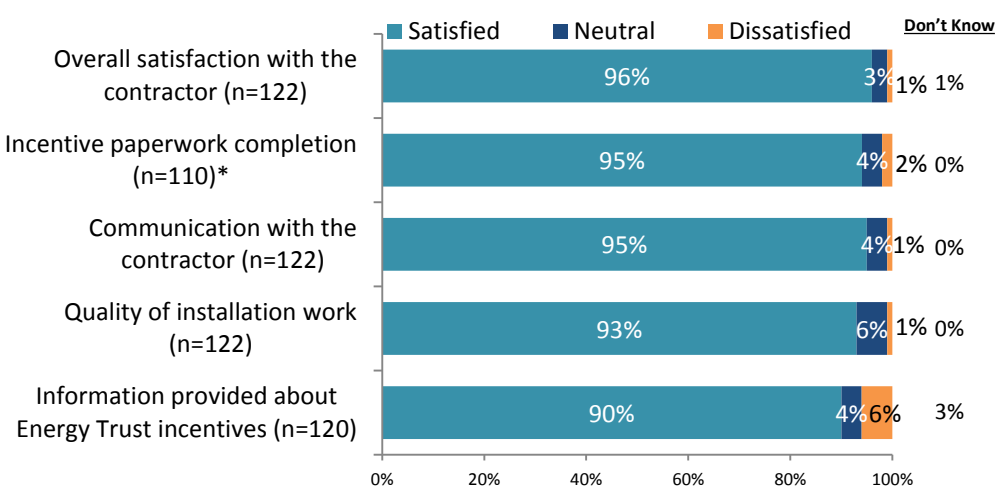
Have you or will you apply for the Oregon State Residential Energy Tax Credit? (n=121)

Yes	85%
No	6%
Not aware of credit	2%
Don't know	7%

Survey question:

- Which of the following statements describe the actions you would have taken had the Energy Trust incentive and information not been available?

Satisfaction With Contractor



Did you consider Energy Trust's list of approved trade allies when selecting your contractor? (n=121)

Yes	37%
No	60%
Don't know	3%

Did your contractor complete some or all of the incentive paperwork for you? (n=117)

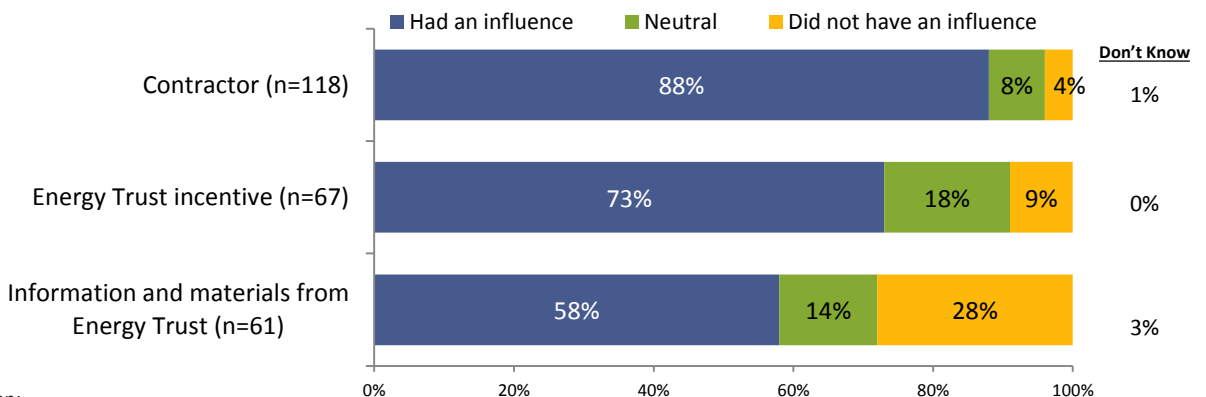
Yes	94%
No	5%
Don't know	1%

*Only asked of respondents that said their contractor completed paperwork

Survey question:

- Thinking of your experience with your contractor, please indicate the number that corresponds to your satisfaction with the following service elements, with 1 indicating not at all satisfied and 5 indicating very satisfied.

Influences on Decision to Have Services or Work Performed



Survey question:

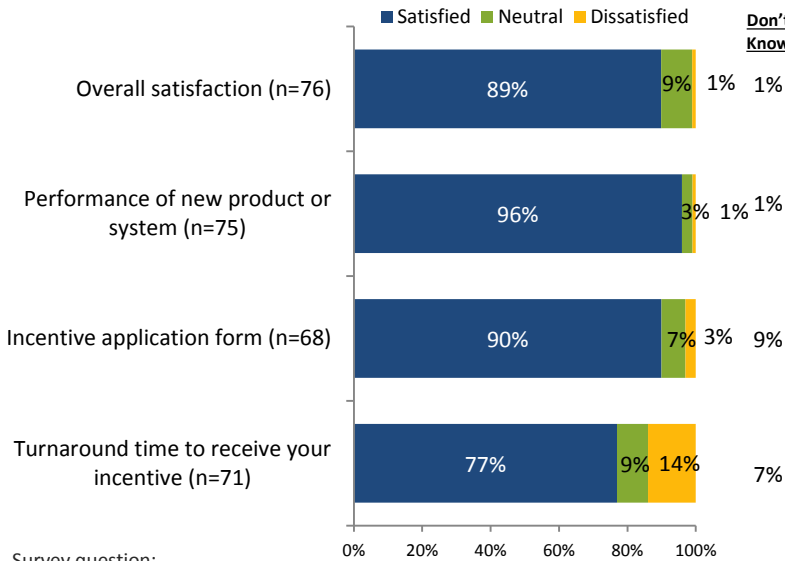
- How influential were the following elements on your decision to have services or work performed?

Water Heaters

- 89% of respondents rated their overall satisfaction a 4 or 5 out of 5.
- 45% of respondents visited the website or received a brochure before work was scheduled or performed.
- Just under half of respondents have applied (or will) for the state tax credit.
- 87% of respondents were satisfied with their contractor; 29% consulted the approved trade ally list when choosing their contractor.
- 56% of respondents said that they would have bought the same water heater without Energy Trust incentives; however, the influence of the incentive was rated a 4 or 5 out of 5 by 56% of the respondents.

Participant Satisfaction

Satisfaction with Program Elements



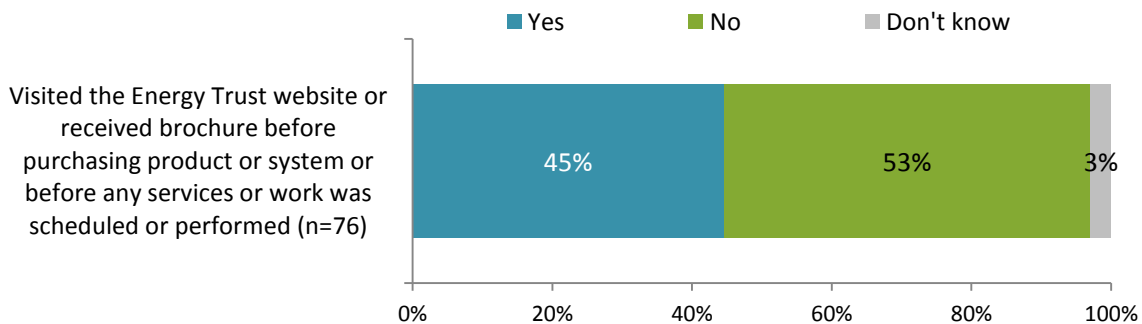
Free Ridership and Satisfaction Over Time



Survey question:

- Thinking of your participation with Energy Trust, please rate your satisfaction with each of the following elements on a 5-point scale where 5 is very satisfied and 1 is not at all satisfied.

Interactions With Energy Trust Prior to Project



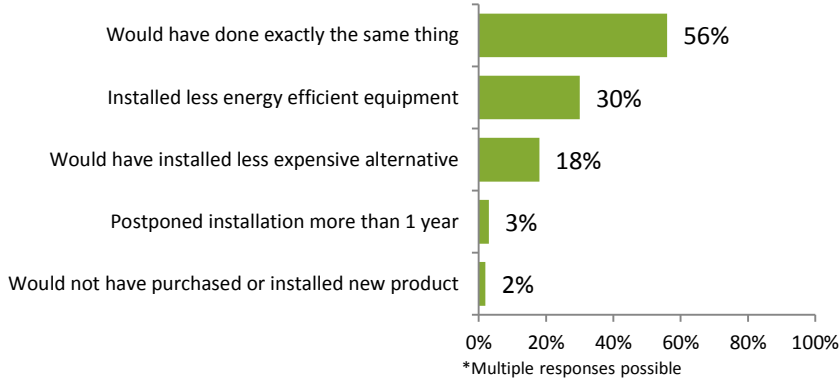
Survey question:

- Did you visit the Energy Trust website or receive one of their brochures before you purchased your product or system or before you had any services or work scheduled and performed?

Water Heaters

Impact of Incentives and Information

Actions Would Have Taken Without Incentive or Information (n=66)*



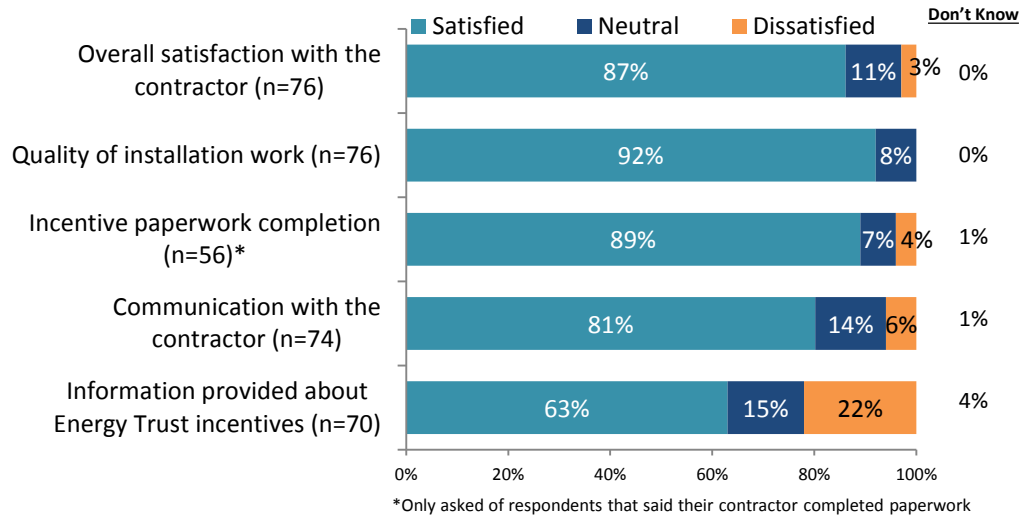
Have you or will you apply for the Oregon State Residential Energy Tax Credit? (n=71)

Yes	45%
No	15%
Not aware of tax credit	20%
Don't know	20%

Survey question:

- Which of the following statements describe the actions you would have taken had the Energy Trust incentive and information not been available?

Satisfaction With Contractor



Did you consider Energy Trust's list of approved trade allies when selecting your contractor? (n=76)

Yes	29%
No	68%
Don't know	3%

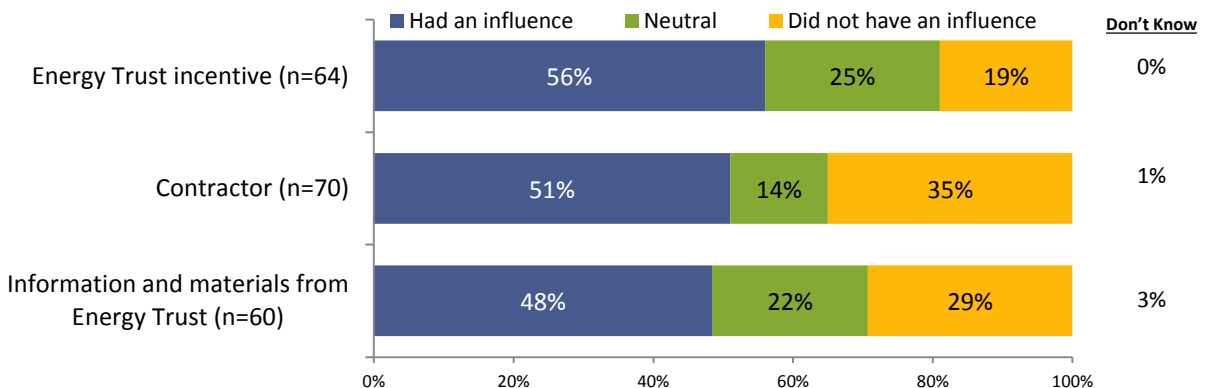
Did your contractor complete some or all of the incentive paperwork for you? (n=75)

Yes	76%
No	21%
Don't know	3%

Survey question:

- Thinking of your experience with your contractor, please indicate the number that corresponds to your satisfaction with the following service elements, with 1 indicating not at all satisfied and 5 indicating very satisfied.

Influences on Decision to Have Services or Work Performed



Survey question:

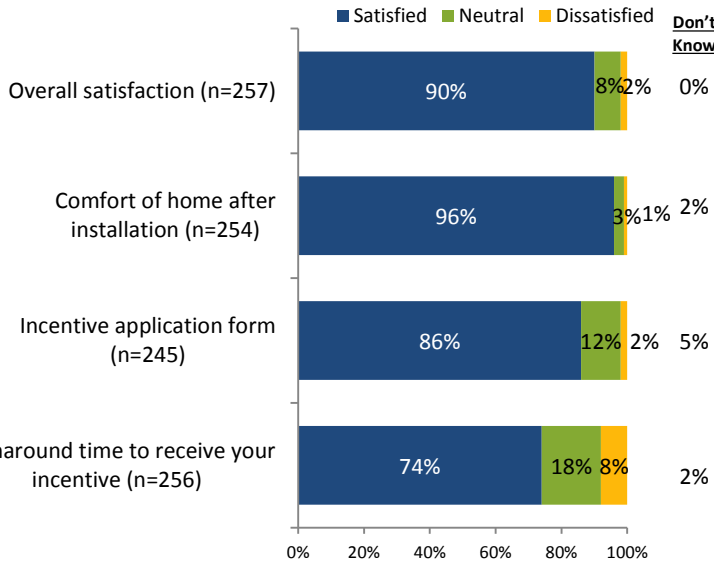
- How influential were the following elements on your decision to have services or work performed?

Windows

- 90% of respondents rated their overall satisfaction a 4 or 5 out of 5. Respondents were least satisfied with the turnaround time for the incentive (74%), but were very satisfied with the comfort of their home after the installation (96%).
- 35% of respondents visited the website or received a brochure before having their windows installed.
- 73% of respondents indicated that in the absence of Energy Trust incentives, they would have installed the same windows.
- The contractor was most influential on respondents' decision to install windows (74% rating a 4 or 5 out of 5).

Participant Satisfaction

Satisfaction with Program Elements



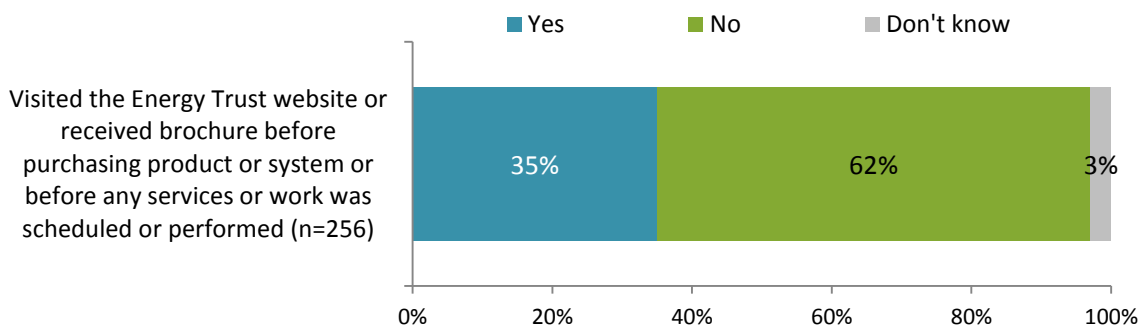
Free Ridership and Satisfaction Over Time



Survey question:

- Thinking of your participation with Energy Trust, please rate your satisfaction with each of the following elements on a 5-point scale where 5 is very satisfied and 1 is not at all satisfied.

Interactions With Energy Trust Prior to Project

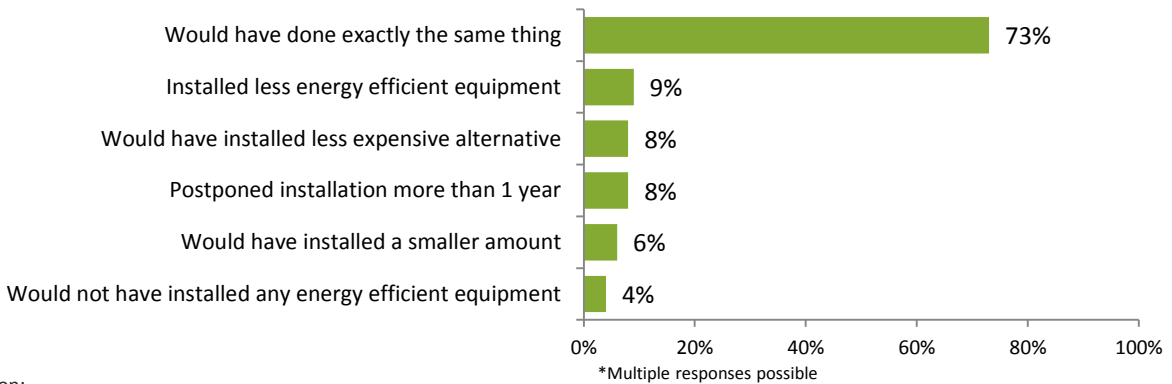


Survey question:

- Did you visit the Energy Trust website or receive one of their brochures before you purchased your product or system or before you had any services or work scheduled and performed?

Impact of Incentives and Information

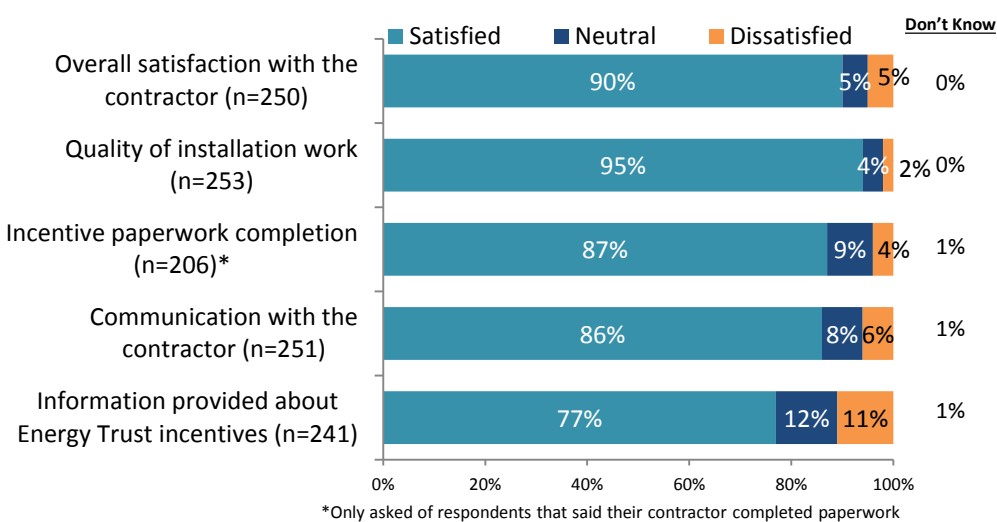
Actions Would Have Taken Without Incentive or Information (n=172)*



Survey question:

- Which of the following statements describe the actions you would have taken had the Energy Trust incentive and information not been available?

Satisfaction With Contractor



Did you consider Energy Trust's list of approved trade allies when selecting your contractor? (n=257)

Yes	23%
No	75%
Don't know	2%

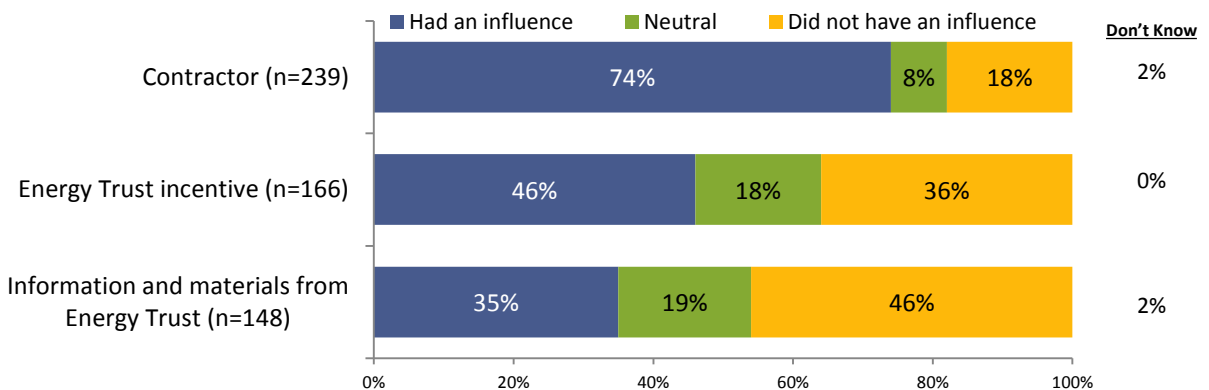
Did your contractor complete some or all of the incentive paperwork for you? (n=257)

Yes	82%
No	17%
Don't know	2%

Survey question:

- Thinking of your experience with your contractor, please indicate the number that corresponds to your satisfaction with the following service elements, with 1 indicating not at all satisfied and 5 indicating very satisfied.

Influences on Decision to Have Services or Work Performed



Survey question:

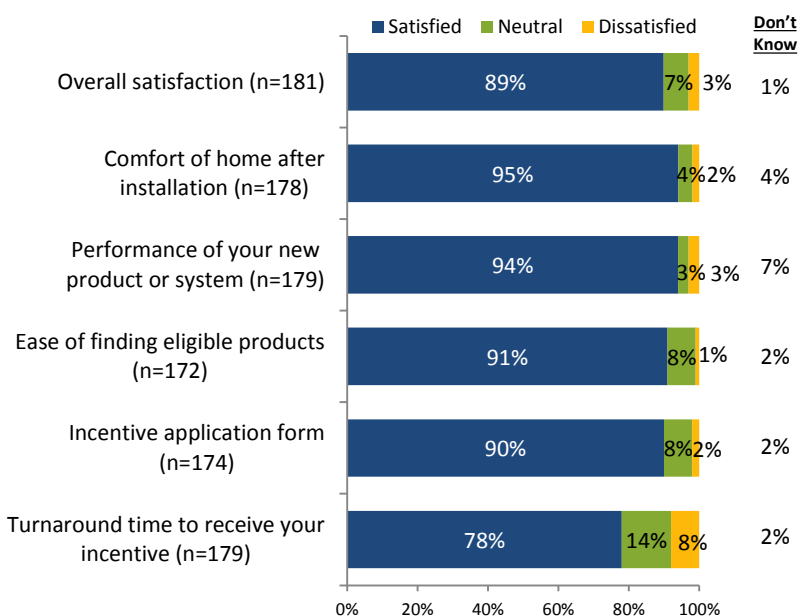
- How influential were the following elements on your decision to have services or work performed?

Gas Fireplaces

- 89% of respondents rated their overall satisfaction a 4 or 5 out of 5.
- Just over half of respondents reported that the gas fireplace replaced a wood burning fireplace.
- The appearance of the gas fireplace had the most influence on the decision to install the fireplace (94%). The incentive was influential for just over half of respondents.
- 71% of respondents said they would have done the same project in absence of the program.
- 91% of respondents were satisfied with their contractor; 25% consulted the approved trade ally list when choosing their contractor.

Participant Satisfaction

Satisfaction with Program Elements



Free Ridership and Satisfaction Over Time

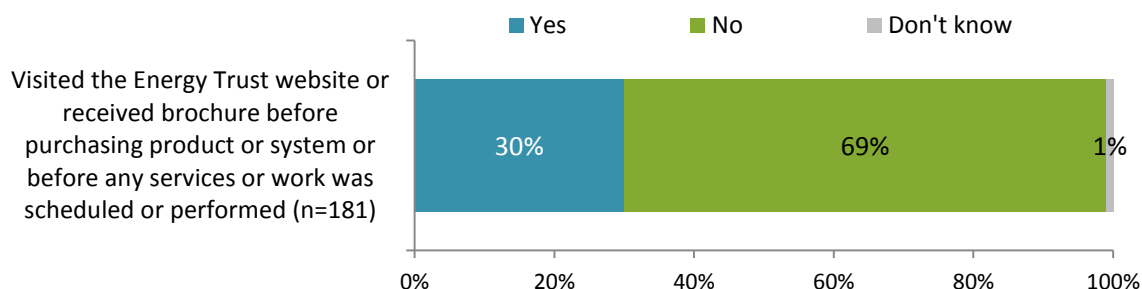


Note: Gas fireplaces were not surveyed as part of Fast Feedback until 2013, which is why there is no free ridership or satisfaction information available for 2011 or 2012.

Survey question:

- Thinking of your participation with Energy Trust, please rate your satisfaction with each of the following elements on a 5-point scale where 5 is very satisfied and 1 is not at all satisfied.

Interactions With Energy Trust Prior to Project



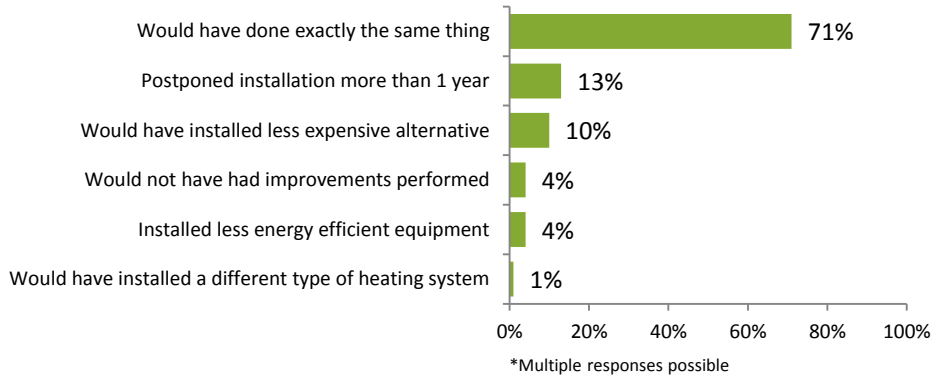
Survey question:

- Did you visit the Energy Trust website or receive one of their brochures before you purchased your product or system or before you had any services or work scheduled and performed?

Gas Fireplaces

Impact of Incentives and Information

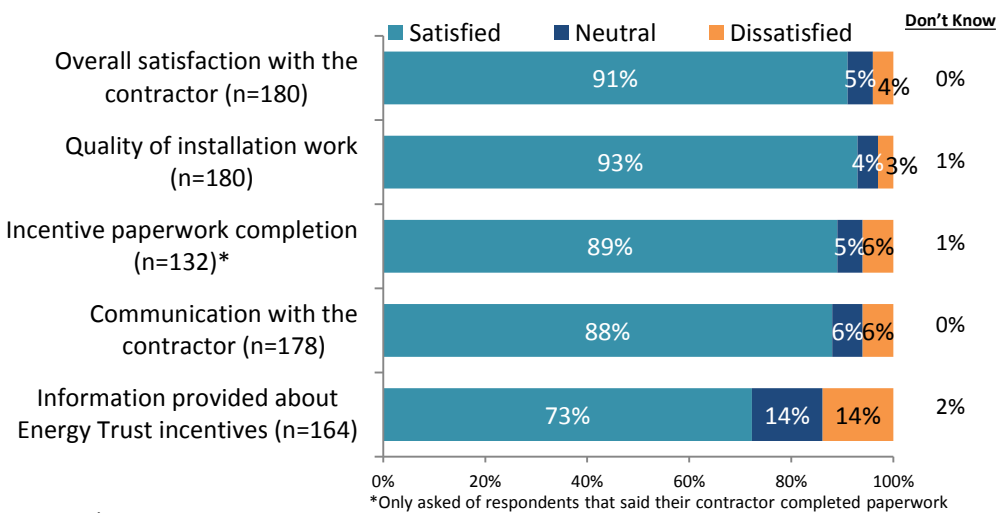
Actions Would Have Taken Without Incentive or Information (n=144)*



Survey question:

- Which of the following statements describe the actions you would have taken had the Energy Trust incentive and information not been available?

Satisfaction With Contractor



Did you consider Energy Trust's list of approved trade allies when selecting your contractor? (n=181)

Yes	25%
No	71%
Don't know	4%

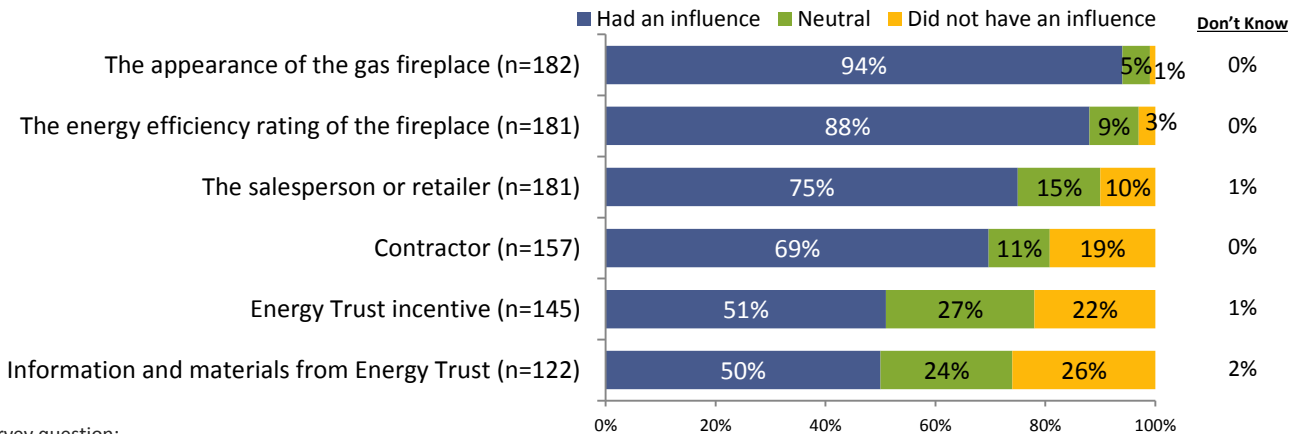
Did your contractor complete some or all of the incentive paperwork for you? (n=175)

Yes	77%
No	19%
Don't know	4%

Survey question:

- Thinking of your experience with your contractor, please indicate the number that corresponds to your satisfaction with the following service elements, with 1 indicating not at all satisfied and 5 indicating very satisfied.

Influences on Decision to Have Services or Work Performed



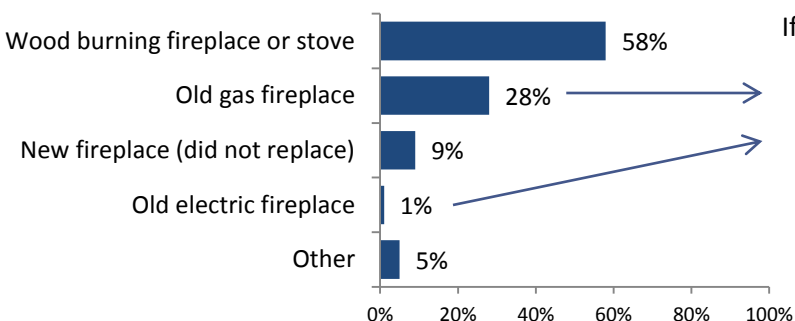
Survey question:

- How influential were the following elements on your decision to have services or work performed?

Gas Fireplaces

Fireplace Replacement Information

Did the gas fireplace you purchased replace...
(n=182)



If replaced fireplace was an old gas or electric unit...

Which of the following statement best describes how you primarily used your old fireplace? (n=52)	
I did not use the old fireplace	37%
For heating, but I also used other systems to heat my home	29%
I used the old fireplace, but for purposes other than heating	27%
As the main heating system for my home	6%
Don't know	2%

How do you use / plan to use your other heating systems now that the gas fireplace is installed? (n=182)	
For heating, but I also plan to use my other heating systems less when I turn the gas fireplace on	68%
Using the gas fireplace will not affect my use of the other heating systems	23%
I do not plan to use the other heating systems at all	7%
Do not plan to use the fireplace	1%
Don't know	2%

Now that the gas fireplace is installed, are you using / planning to use it as the main heating source for your home? (n=182)	
Yes	25%
No	73%
Don't know	3%

If not using or planning to use fireplace as main heating system...

What do you use / plan to use as your main heating system? (n=137)	
Gas furnace	83%
Electric furnace or heat pump	11%
Other	5%
Don't know	1%

Thinking of the upcoming / current heating season, which of the following best describes how you primarily use / plan to use the gas fireplace? (n=136)	
For heating, but I also use / plan to use other systems to heat my home	82%
I use / plan to use the fireplace, but for purposes other than heating	15%
Main heating system for home	2%
Do not use the fireplace	1%
Don't know	1%

Survey questions:

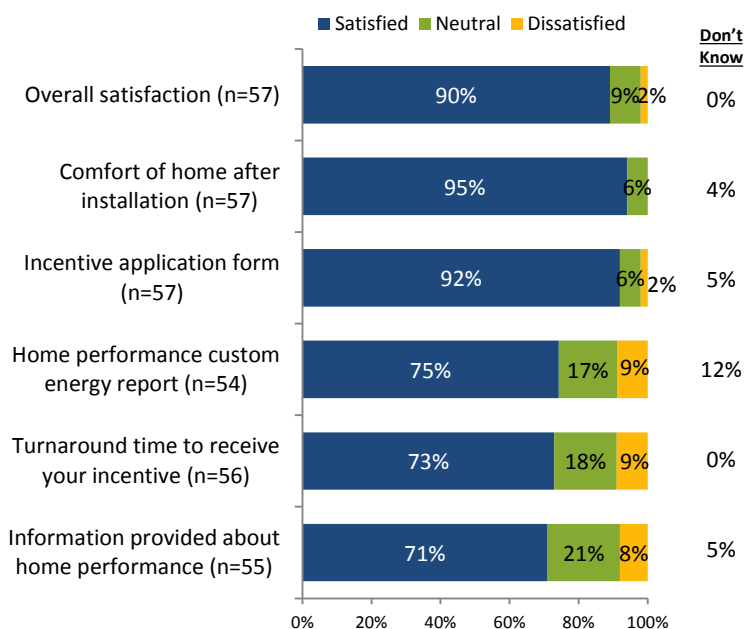
- Did the gas fireplace you purchased replace...
- Now that the gas fireplace is installed, are you <using/planning to use> it as the main heating source for your home?
 - (If no) What do you plan to <use/plan to use> as your main heating system?
 - (If no) Thinking of the current/upcoming heating season, please tell me which of the following statements best describes how you primarily <use/plan to use> the gas fireplace.
- (If replaced fireplace was an old gas or electric unit) Please tell me which of the following statements best describes how you primarily used your old fireplace.

Home Performance

- 90% of respondents rated their overall satisfaction a 4 or 5 out of 5.
- 39% of respondents said they would have done the same project in absence of the program.
- The contractor had more influence than the incentive (81% vs. 77%).
- 90% of respondents were satisfied with their contractor; 51% consulted the approved trade ally list when choosing their contractor.

Participant Satisfaction

Satisfaction with Program Elements



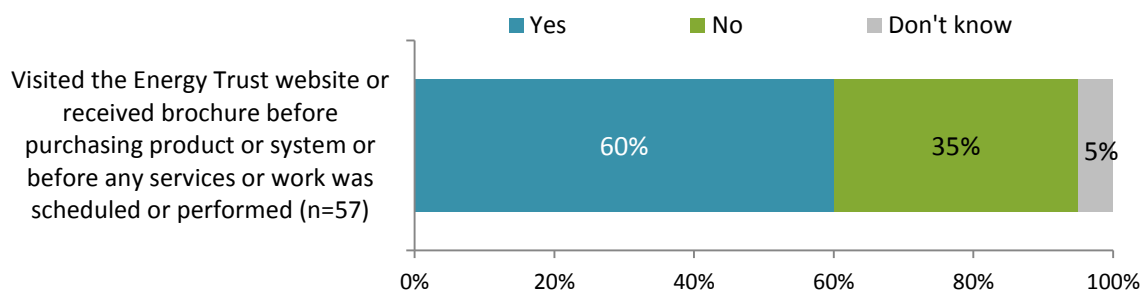
Free Ridership and Satisfaction Over Time



Survey question:

- Thinking of your participation with Energy Trust, please rate your satisfaction with each of the following elements on a 5-point scale where 5 is very satisfied and 1 is not at all satisfied.

Interactions With Energy Trust Prior to Project



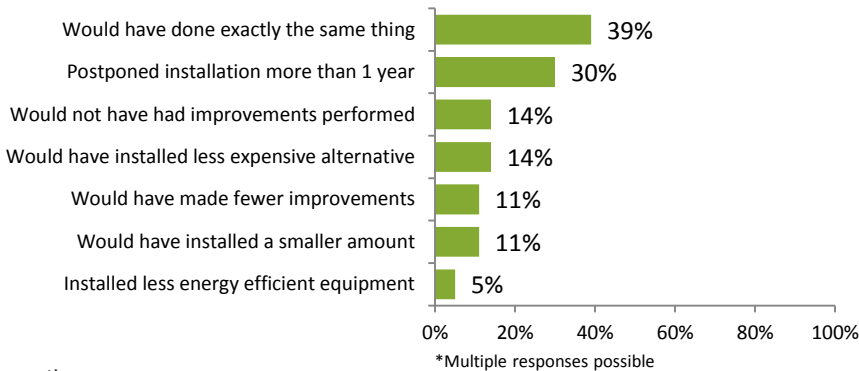
Survey question:

- Did you visit the Energy Trust website or receive one of their brochures before you purchased your product or system or before you had any services or work scheduled and performed?

Home Performance

Impact of Incentives and Information

Actions Would Have Taken Without Incentive or Information (n=44)*



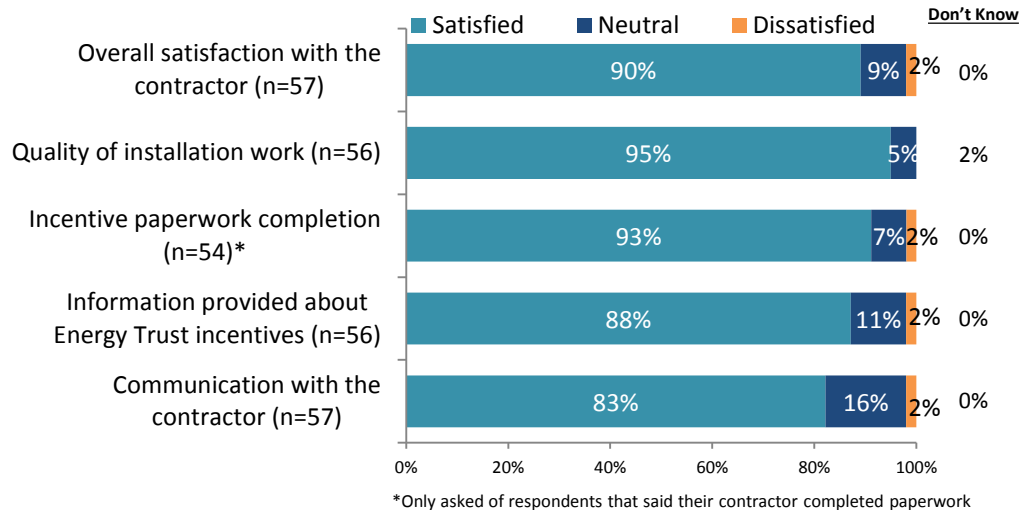
Have you or will you apply for the Oregon State Residential Energy Tax Credit? (n=56)

Yes	71%
No	5%
Not aware of credit	11%
Don't know	13%

Survey question:

- Which of the following statements describe the actions you would have taken had the Energy Trust incentive and information not been available?

Satisfaction With Contractor



Did you consider Energy Trust's list of approved trade allies when selecting your contractor? (n=57)

Yes	51%
No	40%
Don't know	9%

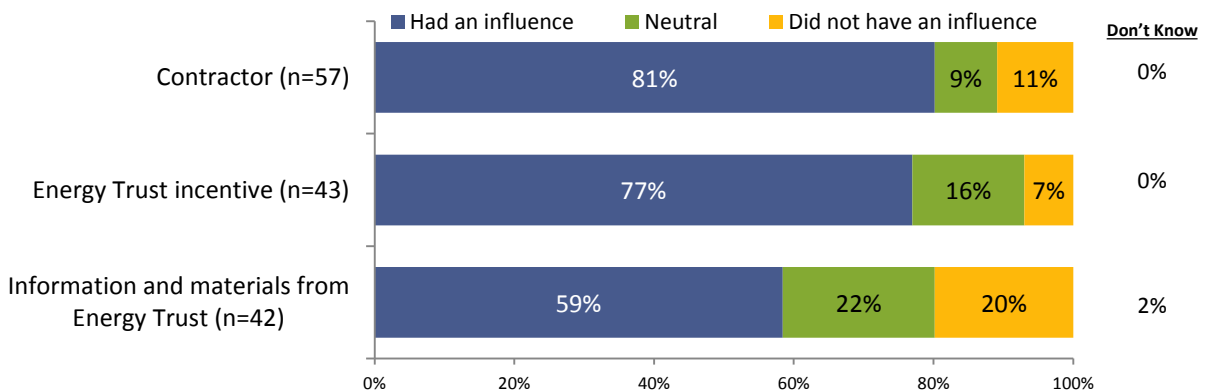
Did your contractor complete some or all of the incentive paperwork for you? (n=57)

Yes	95%
No	0%
Don't know	5%

Survey question:

- Thinking of your experience with your contractor, please indicate the number that corresponds to your satisfaction with the following service elements, with 1 indicating not at all satisfied and 5 indicating very satisfied.

Influences on Decision to Have Services or Work Performed



Survey question:

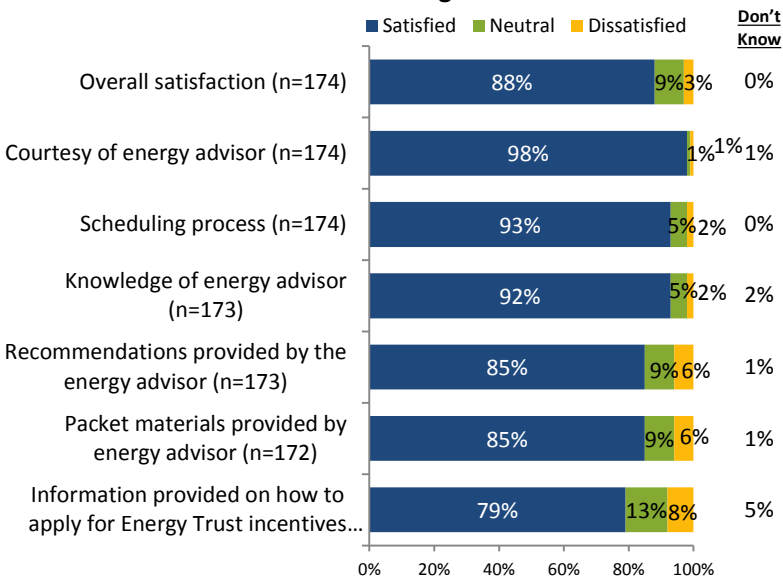
- How influential were the following elements on your decision to have services or work performed?

Home Energy Review

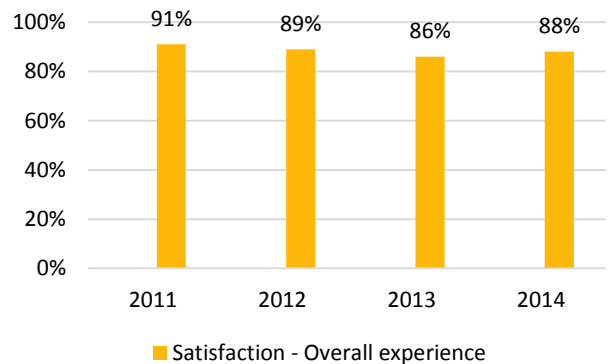
- All respondents received an in-home HER; we were not able to include phone HER respondents in the sample due to a change in the way these activities are tracked.
- 88% of respondents rated their overall satisfaction a 4 or 5 out of 5.
- Self-reported follow-through was 43% of respondents for all actions; this figure has been very stable over time. The most common actions already taken were installing insulation and more CFLs. 66% said they were planning to follow through in the next 12 months.

Participant Satisfaction

Satisfaction with Program Elements



Satisfaction Over Time



Survey question:

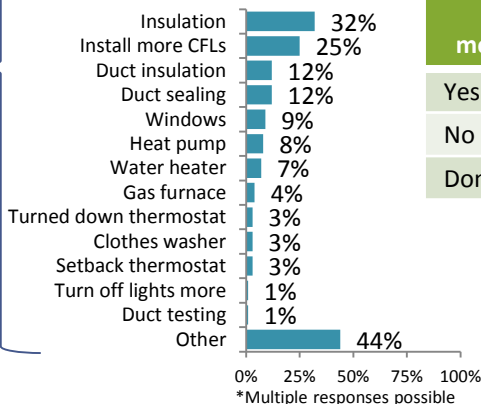
- Thinking of your participation with Energy Trust, please rate your satisfaction with each of the following elements on a 5-point scale where 5 is very satisfied and 1 is not at all satisfied.

Follow Through on Recommendations from Advisor

Have you made any improvements based on recommendations from the advisor? (n=174)

Yes	43%
No	55%
Don't know	2%

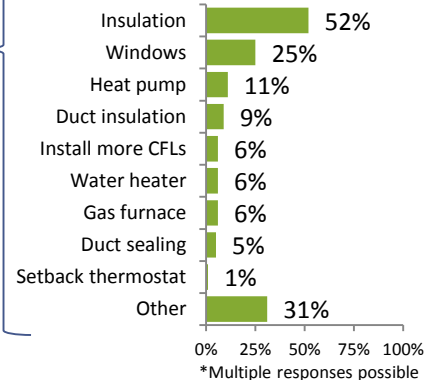
What did you do? (n=75)*



Are you planning to make any improvements in the next 12 months? (n=173)

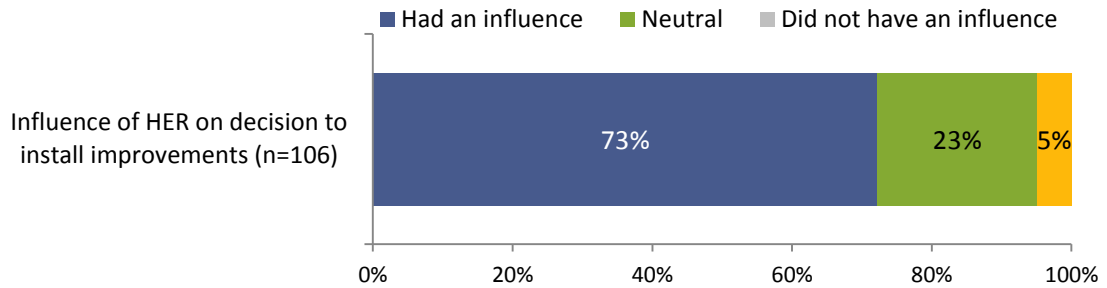
Yes	66%
No	22%
Don't know	12%

What do you plan to do? (n=110)*



Home Energy Review

Influence of HER on Decision to Install Improvements

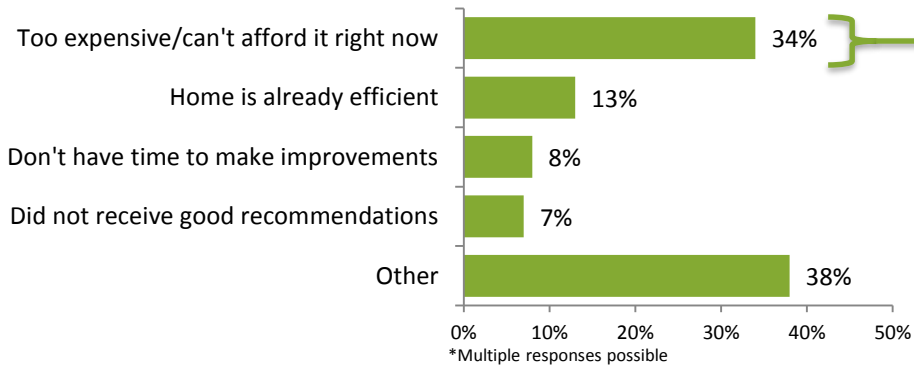


Survey question:

- How influential was the Home Energy Review on your decision to make the improvements you named?

Reasons for Not Making Improvements

Main Reasons for Not Making Any Qualifying Improvements (n=61)*



If you had access to financing, would you make energy saving improvements? (n=21)

Yes	57%
No	29%
Don't know	14%

Survey questions:

- What are your main reasons for not making any improvements that qualify for Energy Trust incentives at this time?
- If you had access to financing, would you make energy saving improvements?

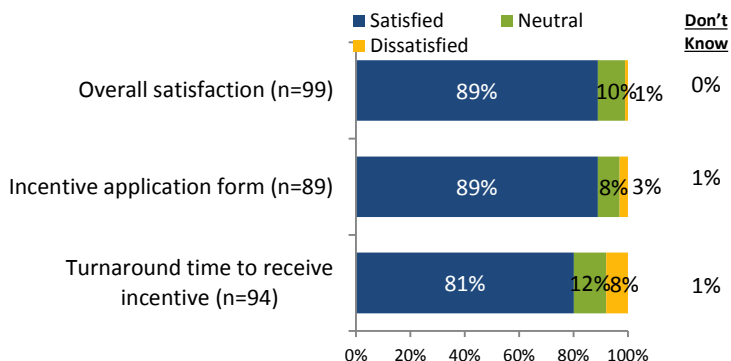
Existing Homes – Washington

- 89% of respondents rated their overall satisfaction a 4 or 5 out of 5.
- Of the 100 respondents who installed measures, 78% said they would have made the same improvements without Energy Trust incentives and information. Over three-quarters said the contractor had an influence on their decision making for the project (79%) and 36% said the Energy Trust incentive influenced their decision.
- For participants that installed measures, 90% were satisfied with their contractor and 20% had consulted the trade ally list when selecting their contractor.
- When asked to rate the importance of various factors in motivating energy efficient improvements, 88% rated increased comfort and convenience a 4 or 5 out of 5. Improved health and safety of the home as well as cost savings were also rated as important by 80% and 78% of respondents, respectively.

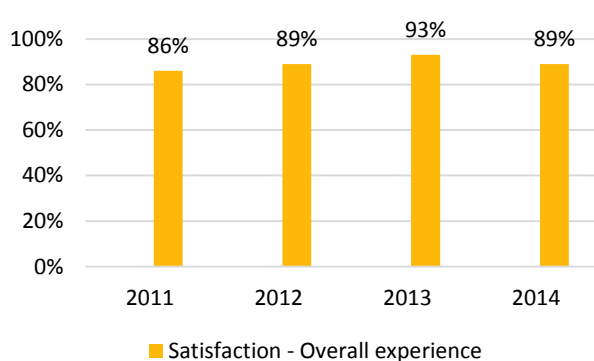
Measure	N
Ceiling Insulation	4
Gas Fireplaces	28
Gas Furnaces	38
Floor Insulation	1
Wall Insulation	2
Water Heaters	2
Windows	20
Home Energy Review	5
Total	100

Participant Satisfaction

Satisfaction with Program Elements



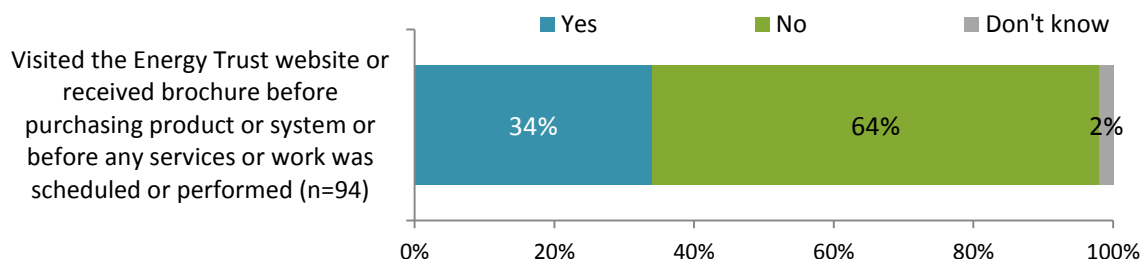
Satisfaction Over Time



Survey question:

- Thinking of your participation with Energy Trust, please rate your satisfaction with each of the following elements on a 5-point scale where 5 is very satisfied and 1 is not at all satisfied.

Interactions With Energy Trust Prior to Project



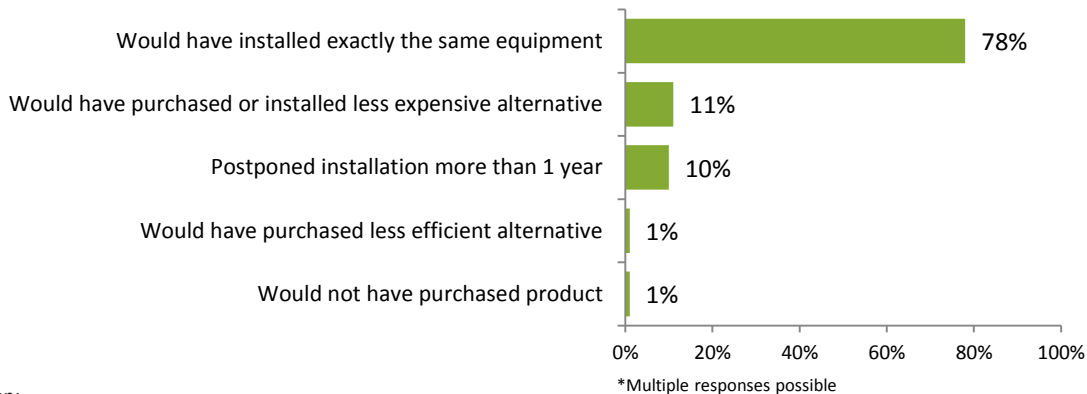
Survey question:

- Did you visit the Energy Trust website or receive one of their brochures before you purchased your product or system or before you had any services or work scheduled and performed?

Existing Homes – Washington

Impact of Incentives and Information

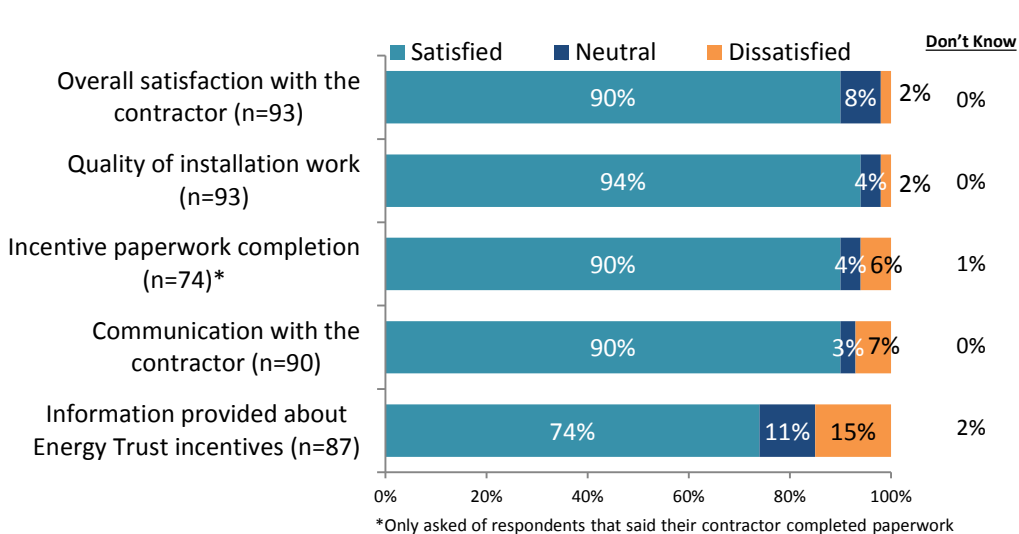
Actions Would Have Taken Without Incentive or Information (n=83)*



Survey question:

- Which of the following statements describe the actions you would have taken had the Energy Trust incentive and information not been available?

Satisfaction With Contractor



Did you consider Energy Trust's list of approved trade allies when selecting your contractor? (n=93)

Yes	20%
No	75%
Don't know	4%

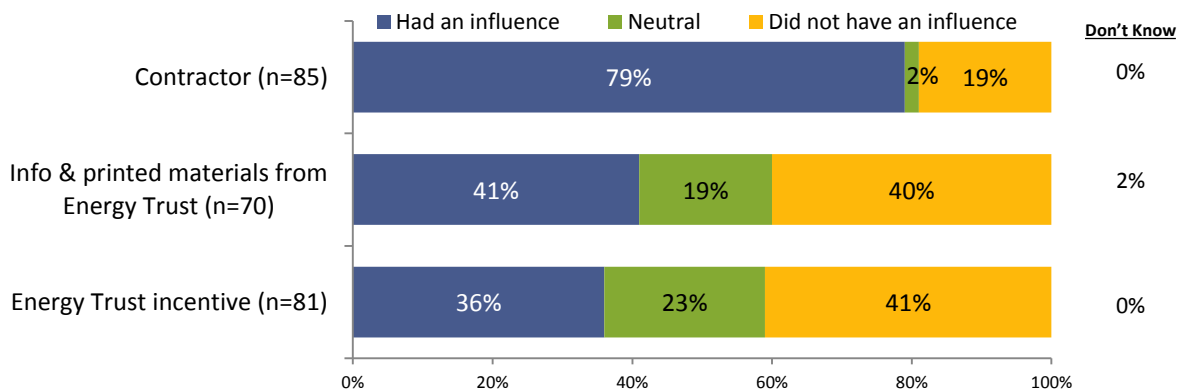
Did your contractor complete some or all of the incentive paperwork for you? (n=93)

Yes	82%
No	18%
Don't know	0%

Survey question:

- Thinking of your experience with your contractor, please indicate the number that corresponds to your satisfaction with the following service elements, with 1 indicating not at all satisfied and 5 indicating very satisfied.

Influences on Decision Have Services or Work Performed

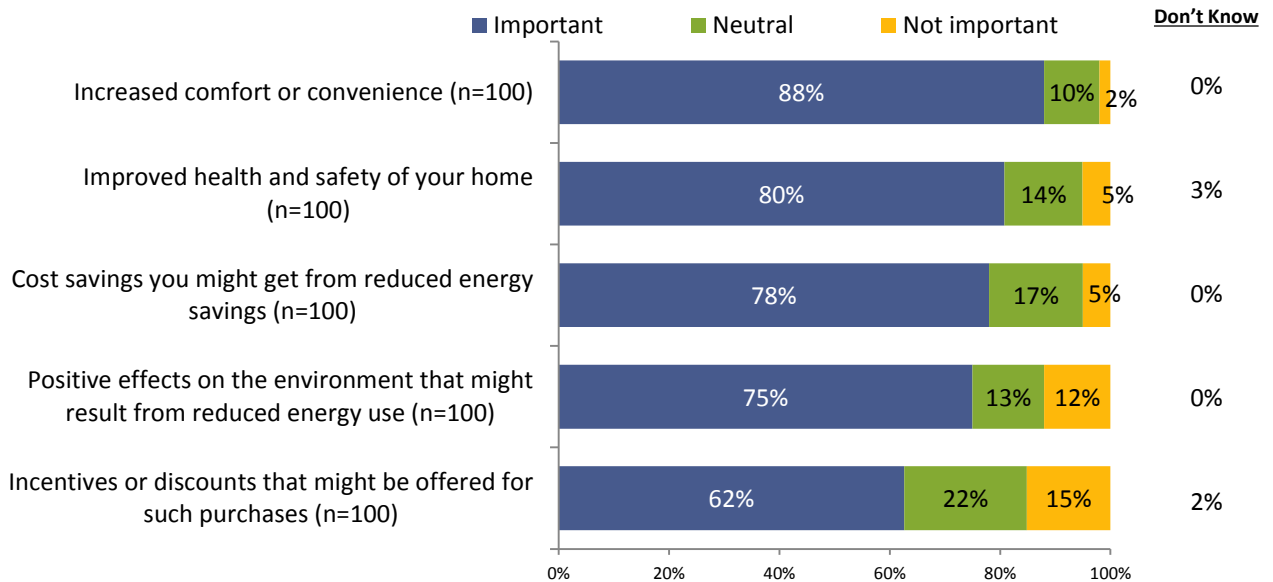


Survey question:

- How influential were the following elements on your decision to have services or work performed?

Existing Homes – Washington

Importance of Factors When Making Energy Efficient Improvements



Survey question:

- Please rate the importance of each of the following factors when you plan energy efficient improvements to your home or shop for energy related products or equipment on a 5 point scale, with 1 indicating not at all important and 5 indicating very important.

Other Renewables

- We were unable to survey any small wind participants in 2014.

Appendix A – Free Ridership Calculations

The method used here is described in more detail in the memo “Energy Trust Free Ridership Methodology” by Phil Degens and Sarah Castor, originally dated June 4, 2008 and updated August 7, 2013.

For simplicity, a project’s free ridership score is composed of two elements: a project change score and an influence score. The project change score is based on the respondent’s answer to the question “Which of the following statements describe the actions you would have taken if Energy Trust incentives and information were not available?” Possible answer choices are assigned a number between 0 and 0.5, with 0 indicating no free ridership and 0.5 indicated the project was a full free rider. Since respondents can select multiple responses to the question, their answer choice with the lowest score is selected. If the respondent selects “Don’t know”, two scores are created to account for the range of possible answers (0 and 0.5). For non-residential projects, a follow-up question is asked of respondents who answered that they would not have done anything differently in absence of the program: “If your firm had not received the incentive, would it have made available the funds needed to cover the entire cost of the project?” If the respondent selects “Yes” their project change score is 0.5, if they select “No” it is 0, and if they select “Don’t know” they are given two scores for project change, as described above.

The influence score is based on their answers to the question about the influence of Energy Trust incentives, program representatives, contractor/salesperson, studies and other program elements. The answer choices are given a value between 0 (element’s influence was a 5, extremely influential) and 0.5 (element’s influence was a 1, not at all influential). The score for the most influential element is taken as the influence score. If a respondent answers “Don’t know” for all elements, they are given two influence scores to account for the range of possible answers (0 and 0.5).

The project change and influence scores are added to generate the free ridership score for each project. For respondents not providing any “Don’t know” answers this will be one number between 0 (no free ridership) and 1 (full free ridership). For those who gave a “Don’t know” answer to one of the questions, there are two free ridership scores, one high and one low. For those who answered “Don’t know” to both the project change and influence questions, no score is calculated.

Free ridership scores are averaged for all respondents of each program/measure group and shown as a percent, rather than a decimal. “Low Scenario” is the average of the free ridership scores where the low score is used for those who answered “Don’t know” to a question; “High Scenario” is the average where the high score is used for those who answered “Don’t know” to a question. “Mid Scenario” is the average of the Low and High Scenarios.

For non-residential participants, these scores are multiplied by the project’s share of total working kWh and therm savings for all respondents to get a program-level estimate of free ridership. Gas and electric free-ridership rates are calculated separately; if a project has gas *and* electric savings, its free ridership score factors into the program’s gas and electric free ridership estimates.

Appendix A – Free Ridership Calculations

Evaluation staff report free ridership once surveying for the calendar year is complete. In the past, if there were fewer than 10 respondents in a given program and fuel category, or in a given measure category, Evaluation staff did not estimate free ridership due to the small sample size. For as long as Fast Feedback surveys have been conducted, we have been able to meet this sample size requirement for all programs and fuels.

Program staff expressed concern that low numbers of respondents on the gas side may be contributing to variability in the gas free-ridership rate, and requested that Evaluation staff investigate this issue. Evaluation staff agree that the number of respondents required to estimate the annual free-ridership numbers used in True-Up should be increased.

Additionally, program staff requested that Evaluation staff investigate how representative the Fast Feedback sample is compared to the population in terms of project type (for Existing Buildings and Production Efficiency). Evaluation staff found that lighting projects were underrepresented in the sample and custom projects were overrepresented. This was especially true for Existing Buildings. Evaluation staff proposed, and the Evaluation Committee accepted, a slightly modified method for calculating free ridership to better align the sample with the population.

We have increased the number of respondents required to estimate free ridership from 10 to 30. Also, for Existing Buildings and Production Efficiency, which have subquotas, we also strive to estimate free ridership for each subquota and then weight by the proportion of savings in the population. For example, if Custom gas projects had a free ridership rate of 20% and Standard gas projects had a free ridership rate of 14%, and gas savings from Custom and Standard projects in the population were each 50%, the program's free ridership rate would be 17%.

In cases where we lack 30 or more respondents, we pool responses from prior quarters or years such that we have 30 or more respondents.

To estimate annual free ridership numbers, we pool responses from prior years such that we have 30 or more respondents. For example, there were 13 Production Efficiency respondents with gas savings in 2013. To estimate the free ridership numbers that would be applied to 2013 Production Efficiency projects in True-Up, we went back to 2011. These responses for 2011-2013 were pooled, which increased the total number of respondents to 37. We use this rule for both residential and non-residential groups.

For Production Efficiency and Existing Buildings, if there are fewer than 30 respondents in each subquota group, we will not estimate free ridership by subquota and will instead pool all responses.

Appendix A – Free Ridership Calculations

For example, there were fewer than 30 respondents in 2014 for Production Efficiency Custom and Standard gas projects (7 and 4, respectively). When we go back to 2011, there are 35 respondents in Custom, but only 22 in Standard. So, we estimate a free ridership rate without breaking out Custom and Standard, and go back to 2012 to get the requisite 30 respondents for both subquota groups combined.

Where free ridership is estimated using data from past years, we clearly note this in the report.

In some cases, we report two free ridership numbers: one to be used for the purposes of True-Up and one to be used for the purposes of budgeting. Two different numbers are calculated when projects represent more than 30% of the surveyed savings in a given group (driven by sample size considerations – decision rules for this are described above). All numbers in this report are to be used for the purposes of True-Up and budgeting, unless noted otherwise.

For example, in 2015, a single project represented 44% of the savings for the Multifamily gas group. A free ridership rate to be used for the purposes of True-Up was calculated, which included all of the projects (34%) and a free ridership rate to be used for the purposes of budgeting was calculated (42%) which excludes that large project.

Detailed Free Ridership Numbers

Commercial and Industrial

Existing Buildings - electric

2013-2014	Low Scenario	Mid Scenario	High Scenario
Custom (n=60)	37%	38%	39%
Lighting (n=158)	15%	18%	20%
Standard (n=71)	29%	30%	30%

There were fewer than 30 respondents in 2014 for Custom (28). So, we go back to 2013 to estimate free ridership. The two other tracks, Lighting and Standard, had more than 30 respondents (79 and 33, respectively) in 2014.

Project Type	Free Ridership Rate	Proportion in Population (2014)
Custom	38%	25%
Lighting	18%	66%
Standard	30%	9%
Free Ridership Rate	24%	

Existing Buildings - gas

2012-2014	Low Scenario	Mid Scenario	High Scenario
Custom (n=48)	21%	23%	24%
Standard (n=118)	28%	33%	37%

There were fewer than 30 respondents in 2014 for Custom (7), but more than 30 for Standard (42). There were only 14 respondents in the Custom track in 2013 (but 40 in Standard), so, we go back to 2012 to estimate free ridership.

Project Type	Free Ridership Rate	Proportion in Population (2014)
Custom	23%	51%
Standard	33%	49%
Free Ridership Rate	28%	

Production Efficiency - electric

2014	Low Scenario	Mid Scenario	High Scenario
Custom (n=30)	38%	38%	39%
Lighting (n=62)	19%	23%	26%
Standard (n=57)	18%	20%	22%

There were more than 30 respondents in 2014 for all three tracks, so we just use 2014 data to estimate free ridership.

Project Type	Free Ridership Rate	Proportion in Population (2014)
Custom	38%	60%
Lighting	23%	29%
Standard	20%	11%
Free Ridership Rate	32%	

Production Efficiency - gas

2012-2014	Low Scenario	Mid Scenario	High Scenario
Custom and Standard (n=34)	20%	21%	22%

There were fewer than 30 respondents in 2014 for Custom and Standard (7 and 4, respectively). When we go back to 2011, there are 30 respondents in Custom, but only 18 in Standard. So, we estimate a free ridership rate without breaking out Custom and Standard, and go back to 2012 to get the requisite 30 respondents.

Detailed Free Ridership Numbers

Existing Multifamily - electric

2014	Low Scenario	Mid Scenario	High Scenario
Electric (n=35)	14%	16%	18%

The Existing Multifamily sample does not have subquotas, so we estimate one free ridership rate for electric and one for gas. On the electric side, there 35 respondents in 2014.

Existing Multifamily - gas

2012-2014	Low Scenario	Mid Scenario	High Scenario
Gas (n=32)	35%	42%	49%

On the gas side, there were fewer than 30 respondents in 2014 (11). 2013 only had 8 respondents. So, we go back to 2012 to estimate free ridership.

Home Products

2014	Low Scenario	Mid Scenario	High Scenario
Clothes Washers (n=155)	53%	56%	60%
Refrigerators (n=136)	54%	56%	59%
Refrigerator Recycling (n=159)	22%	27%	32%

Existing Homes

2014	Low Scenario	Mid Scenario	High Scenario
Ceiling Insulation (n=125)	37%	37%	38%
Floor Insulation (n=105)	40%	40%	40%
Wall Insulation (n=56)	43%	43%	44%
Duct Insulation (n=61)	27%	29%	30%
Heat Pumps (n=78)	42%	45%	49%
Ductless Heat Pumps (n=59)	35%	38%	41%
Gas Fireplaces (n=112)	42%	43%	45%
Water Heaters (n=61) ^a	42%	48%	53%
Windows (n=137)	49%	51%	52%
Home Performance (n=43)	28%	29%	30%

^a 0.67 residential gas water heaters are market of a market transformation effort; free ridership is shown for information only and will not be the basis for programmatic decisions about the measure.

Appendix B – Measures Included in Fast Feedback

Existing Buildings

- Projects must have either working therm or working kWh savings, and the incentive amount must be above zero
- Projects must have a program code of BE
- Studies are *not* included
- Projects with a track of O&M and Comprehensive are *not* included
- Mega projects are *not* included

Production Efficiency

- Projects must have either working therm or working kWh savings, and the incentive amount must be above zero
- Projects must have a program code of PEF or PEL
- Studies are *not* included
- Projects with a track of Industrial Energy Improvement, Kaizen Blitz, Prescriptive, and Strategic Energy Management are *not* included; motor projects are also excluded
- Mega projects are *not* included

Existing Multifamily

- Projects must have an incentive amount above zero
- Projects must have a program code of BEM
- Instant savings measures and direct install measures are not included

New Homes and Products

- Projects must have an incentive amount above zero
- Projects must have a program code of EHP
- Only refrigerator, refrigerator recycling, and clothes washer measures are eligible to be surveyed
- New home, lighting and showerheads, and new manufactured home measures are *not* included

Existing Homes

- Projects must have a program code of HES or HPF
- Only ceiling, floor, duct, and wall insulation; gas fireplaces; heat pumps (including ductless); in-home HERs; gas tank water heaters; windows; gas furnaces (Washington only); and non-CEWO home performance projects are surveyed through Fast Feedback
- Savings Within Reach (moderate income track) and existing manufactured homes are *not* included

Solar

- Only non-third party owned solar projects are surveyed through Fast Feedback

Other Renewables

- Projects must have a program code of VSW and working kWh savings

Additionally, for all programs, projects must:

- Be recognized within a specific date range
- Be associated with a contact with one of the player roles: lead, owner, accounts receivable, system owner, or host owner (non-residential) and owner or host owner (residential)
- Have a status of “completed” (non-residential) or anything but a status of “abandon” (residential)
- Be associated with a contact record containing a phone number

We also exclude customers that we have recorded as having been surveyed within the past twelve months to avoid survey fatigue. It is worth noting that for the purposes of surveying, we consider a year (for example, 2011) to go from December 31st of the prior year through December 30th of 2011. The reason for this is to ensure that we have sufficient surveys early in the year to provide information about free ridership and satisfaction, which we report on quarterly. In addition, we are looking for the month in which the check was cut, not the month the savings were recognized, and December 31st is a catch-all date for projects that were counted for the previous program year, but for which checks were cut in January, therefore they are really January participants.