

## **Energy Efficiency Improvement Scheme 2018 Compliance Survey Report**

**A survey of recipients for the 2018 compliance year to measure satisfaction and determine future opportunities for assisting households and businesses to save energy**



**A survey of 654 ACT residents and 139 businesses,  
conducted by Jetty Research for the ACT Government's  
Environment, Planning and Sustainable Development Directorate**

**FINAL REPORT dated September 25<sup>th</sup> 2019**



Contact:



Level 1, 30 Industrial Drive  
Coffs Harbour NSW  
PO Box 1555  
Coffs Harbour NSW 2450

**w:** [www.jettyresearch.com.au](http://www.jettyresearch.com.au)  
**e:** [info@jettyresearch.com.au](mailto:info@jettyresearch.com.au)  
Coffs Harbour Sydney  
ACN 121 037 429

<b>Prepared by</b>	
<b>Reviewed by</b>	
<b>Date</b>	25 <sup>th</sup> September 2019
<b>Document Name</b>	5556 EEIS 2018 Compliance Report
<b>Version</b>	Final

## Table of Contents

<b>DISCLAIMER.....</b>	<b>5</b>
<b>EXECUTIVE SUMMARY.....</b>	<b>6</b>
<b>INTRODUCTION.....</b>	<b>8</b>
BACKGROUND AND OBJECTIVES.....	8
METHODOLOGY.....	8
<i>Residential Participants (Part A of the report)</i> .....	8
<i>Commercial Participants (Part B of the report)</i> .....	9
SAMPLING ERROR.....	9
<i>Graph i: How sampling error varies with sample and population size</i> .....	10
PART A1: SERVICE EXPERIENCE.....	11
<i>Graph A1.1: Service Provided</i> .....	11
<i>Table A1.1: Service breakdown, by priority vs. other</i> .....	11
<i>Graph A1.2: Installer behaviours</i> .....	12
<i>Graph A1.3: Installer instructions</i> .....	13
<i>Graph A1.4: Installer provision of documents</i> .....	13
PART A2: SATISFACTION WITH PRODUCT PROVIDED.....	14
<i>Graph A2.1: Heat Pump Water Heaters</i> .....	14
<i>Graph A2.2: Gas Heaters</i> .....	14
<i>Graph A2.3: Reverse-cycle Air Conditioners</i> .....	15
PART A3: IMPACT OF THE PRODUCT.....	16
<i>Graph A3.1: Improved comfort and room temperature</i> .....	16
<i>Graph A3.2: Improved Physical or Mental Health of Household members</i> .....	17
<i>Graph A3.3: Impact on sick days</i> .....	18
<i>Graph A3.4: Impact on Energy Bills</i> .....	18
PART A4: OVERALL PERCEPTIONS OF THE SCHEME.....	20
<i>Graph A4.1: Overall satisfaction with the scheme</i> .....	20
<i>Graph A4.2: Perception of problems with the installation</i> .....	20
<i>Graph A4.3: Can you briefly describe the problem or issue?</i> .....	21
<i>Graph A4.4: Has the problem been rectified?</i> .....	21
<i>Graph A4.5: Continued use of Installation</i> .....	22
<i>Graph A4.6: Sources of Information</i> .....	22
<i>Table A4.1: Sources of information, by priority vs. other</i> .....	23
<i>Graph A4.7: Overall perception of the service received</i> .....	23
<i>Table A4.2: Overall satisfaction, by type of installation</i> .....	24
<i>Graph A4.8: Likelihood of undertaking the upgrades without the scheme</i> .....	25

<b>PART B1: RESPONDENT CHARACTERISTICS .....</b>	<b>26</b>
<i>Graph B1.1: Employees in business.....</i>	26
<i>Graph B1.2: Industry .....</i>	26
<b>PART B2: INFORMATION SOURCES .....</b>	<b>28</b>
<i>Graph B2.1: How did you first find out about ActewAGL's lighting/appliance upgrade program? .....</i>	28
<b>PART B3: SATISFACTION WITH PROGRAM .....</b>	<b>29</b>
<i>Graph B3.1: How easy was it to sign up for this program?.....</i>	29
<i>Graph B3.2: How satisfied are you with the installation and results of the program?.....</i>	29
<i>Graph B3.3: How would you rate your overall experience from first contact to the completion of the installation? .....</i>	30
<b>PART B4: FINANCIAL IMPACT.....</b>	<b>31</b>
<i>Graph B4.1: To what extent has the lighting upgrade reduced your energy consumption and bills? .....</i>	31
<i>Graph B4.2: How much did you pay for the upgrade?.....</i>	31
<i>Graph B4.3: How likely is it that you would have undertaken the lighting/appliance upgrade without the program? .....</i>	32
<i>Graph B4.4: What were your company's motivation/s for participating in the program? .....</i>	32
<b>PART B5: AWARENESS OF ENERGY-SAVING TECHNOLOGIES AND OTHER COMMENTS .....</b>	<b>34</b>
<b>APPENDIX 1: QUESTIONNAIRE.....</b>	<b>35</b>



## Disclaimer

**While all care and diligence has been exercised in the preparation of this report, Jetty Research Pty. Ltd. does not warrant the accuracy of the information contained within and accepts no liability for any loss or damage that may be suffered as a result of reliance on this information, whether or not there has been any error, omission or negligence on the part of Jetty Research Pty. Ltd. or its employees.**

## Executive summary

The Energy Efficiency Improvement Scheme (EEIS) commenced in 2013 and is currently legislated to run until the end of 2020. A comprehensive post-implementation review has been undertaken annually since the scheme commenced and primary data collection with residents and businesses has formed a part of these reviews.

In May 2019, the ACT Government commissioned Jetty Research to continue this research through the conduct of a CATI telephone survey of [REDACTED] residential participants and online survey of commercial participants.

For the residential component of the survey, [REDACTED] CATI (telephone) interviews were conducted from June 13<sup>th</sup> to 24<sup>th</sup> 2019 inclusive. An online survey of businesses taking advantage of lighting upgrades was conducted between June 20<sup>th</sup> and July 8<sup>th</sup>, with 139 surveys completed.

Based on the number of residential and commercial EEIS participants, a random sample of [REDACTED] residential participants and [REDACTED] commercial participants implies a margin for error of +/- 3.3% and 7.7% respectively (both calculated at the 95% confidence level).

### Among the residential survey's major findings:

1. Satisfaction with EEIS was:
  - a. Extremely high in relation to gas heaters (93% satisfied with the appliance, 95% feeling it was appropriate for their property)
  - b. Very high in relation to the water heaters (83% and 96%)
  - c. High in relation to the air conditioners (73% and 72%).
2. Respondents were enthusiastic about the impact of their new appliance on keeping their home comfortable in summer and winter, with 76% believing it has made a substantial difference. They were also impressed with the impact of new appliances on improved physical or mental health— with 79% saying the new appliances had made some sort of improvement, and one out of five believing it had made a "huge" difference.
3. 89% of respondents believed the new appliances had helped them reduce their energy bills, with 29% believing it had made a substantial improvement.
4. Overall satisfaction with the installation (i.e. excluding those with fridge/freezer removals) was extremely high, at 89%.
5. However, some 40% of respondents had encountered some issues or problems post-installation, with the major issues being faulty equipment (reported by 48% of those encountering problems), patching or installation issues (36%) and/or excess noise /vibration (12%). And only half of those reporting such issues – representing 19% of all respondents with an installation - felt they had been adequately rectified.

6. Major sources of initial information regarding the scheme were word-of-mouth/social media (33%), ActewAGL advertising (29%) or being contacted by ActewAGL (11%).
7. Among all programs tested, satisfaction was highest with fridge/freezer removals (with a mean satisfaction score of 4.64 on a 1-5 Likert scale), followed by water heaters (4.57), gas heaters (4.48) and air conditioners (4.05). In all, 91% believed the overall service was good or excellent - with only 4% believing it to be poor or very poor.
8. 44% of priority, low income households surveyed said they would have been extremely unlikely to undertake the upgrades without the EEIS, with a further 8% unlikely.
9. Compliance was high in relation to installers removing old appliances (97% recall) and leaving instructions/demonstrating the appliance (93% recall), but less so in the case of signing a form/iPad (72% recall) and showing ID (57% recall).
10. Likewise, 85% of residential respondents recalled being left with details of the new heating/cooling equipment. But only 69% recalled seeing a copy of all certificates of compliance, and 65% recalled being left with details of what to do in case of problems

**Among the business survey's major findings:**

1. 86% were satisfied with the installation and result, with 7% dissatisfied. Likewise 85% found the overall experience good or very good, with only 8% finding it poor/very poor. Those dissatisfied typically reported specific installation or performance issues (detailed in report).
2. 56% reported reductions in energy bills.
3. 76% believed they would have been unlikely to undertake the lighting upgrades without the EEIS scheme.
4. Half (51%) had been contacted directly by ActewAGL, while 14% said they had responded to advertising and another 14% via word-of-mouth.
5. 88% said it was easy or very easy to sign up for the program, with only 1% classing it as difficult.

## Introduction

### Background and Objectives

The Energy Efficiency Improvement Scheme (EEIS) commenced in 2013 and is currently legislated to run until the end of 2020. A comprehensive post-implementation review has been undertaken annually since the scheme commenced and primary data collection with residents and businesses has formed a part of these reviews.

In May 2019, the ACT Government commissioned Jetty Research to continue this research through the conduct of: (a) a CATI<sup>1</sup> telephone survey of [REDACTED] residential participants; and (b) an online survey of commercial participants.

The questionnaire replicated the previous waves of research but with a focus on the most recent year's EEIS offering. Specifically, the 2018 compliance year focussed on central-ducted gas heaters, fridge/freezer removal, reverse-cycle air conditioning and heat pump water heaters.

As per the agreed project brief, the survey addressed the following objectives:

1. Investigate participant satisfaction associated with EEIS activities;
2. Confirm assumptions by testing the achievement of energy savings, and whether activities would have been undertaken in the absence of EEIS;
3. Explore co-benefits of energy efficiency and future opportunities for assisting households and businesses to save energy; and
4. Identify and provide potential candidates for case studies.

## Methodology

### Residential Participants (Part A of the report)

The ACT Government supplied Jetty Research with the full list of [REDACTED] residential participants from which Jetty Research developed a stratified sample of participants across the following parameters:

- a) Priority and non-priority households;
- b) Fridge removal and "other".

A survey form was constructed collaboratively between the ACT Government and Jetty Research based on satisfying the above objectives and is available in Appendix 1.

---

<sup>1</sup> Computer-assisted telephone interview

Surveying was conducted between June 13<sup>th</sup> and 24<sup>th</sup>. A team of up to 10 researchers called residents on weekday evenings from 3.30 to 8pm and on weekends from midday to 5pm. Where phones went unanswered, were engaged or diverted to answering machines, researchers phoned on up to five occasions at different times of the afternoon or evening.

Survey time averaged 8.2 minutes. Response rate (measured as percentage of eligible residents reached who agreed to participate) was excellent, at 81%

### **Commercial Participants (Part B of the report)**

Based on an online survey instrument supplied by Jetty Research, The ACT Government sent emails to [redacted] commercial participants of the EEIS program – primarily relating to lighting upgrades. The survey was open June 20<sup>th</sup> to July 8<sup>th</sup> inclusive, with two reminder emails. In total, [redacted] commercial participants completed the survey which took, for a participation rate of 15.9%. Average completion time was 4.9 minutes.

Please note that due to the nature of the survey, not all respondents answered every question. The number of respondents answering each question is marked as “n = XXX” in the graph accompanying that question. Caution should be taken in analysing some questions due to the small sample size.

Where differences in this report are classed as significant, this implies they are statistically significant based on independent sample t-scores or other analysis of variation (or ANOVA) calculations. In statistical terms, significant differences are unlikely to have been caused by chance alone.

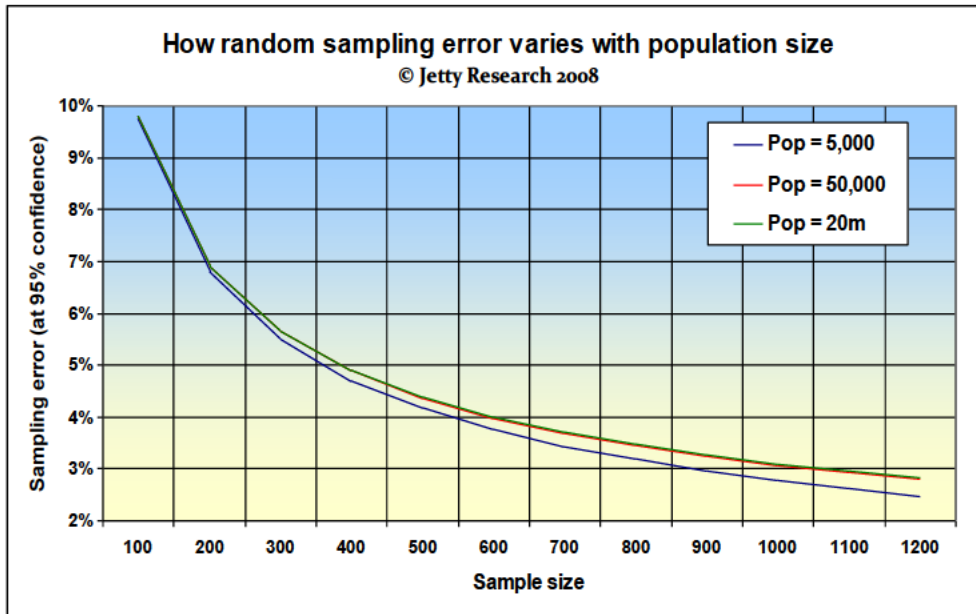
### **Sampling error**

Based on the total number of [redacted] residential participants who took part in one or more EEIS activity over the survey period, a sample of [redacted] residential participants implies a margin for error of +/- 3.3% at the 95% confidence level. (This means in effect that if we conducted a similar study 20 times, results should reflect the views and behaviour of the overall survey population to within a +/- 3.3% margin in 19 of those 20 surveys.)

Meanwhile [redacted] businesses took part in the EEIS scheme in 2018. A sample of [redacted] respondents equates to random sampling error of +/- 7.7% at the 95% confidence level.

As Graph i shows, margin for error falls as sample size rises. Hence cross-tabulations or sub-groups within the overall sample will typically create much higher margins for error than the overall sample. For example, using the above population sizes, a sample size of 100 exhibits a margin for error of +/- 9.8% (again at the 95% confidence level).

**Graph i: How sampling error varies with sample and population size**



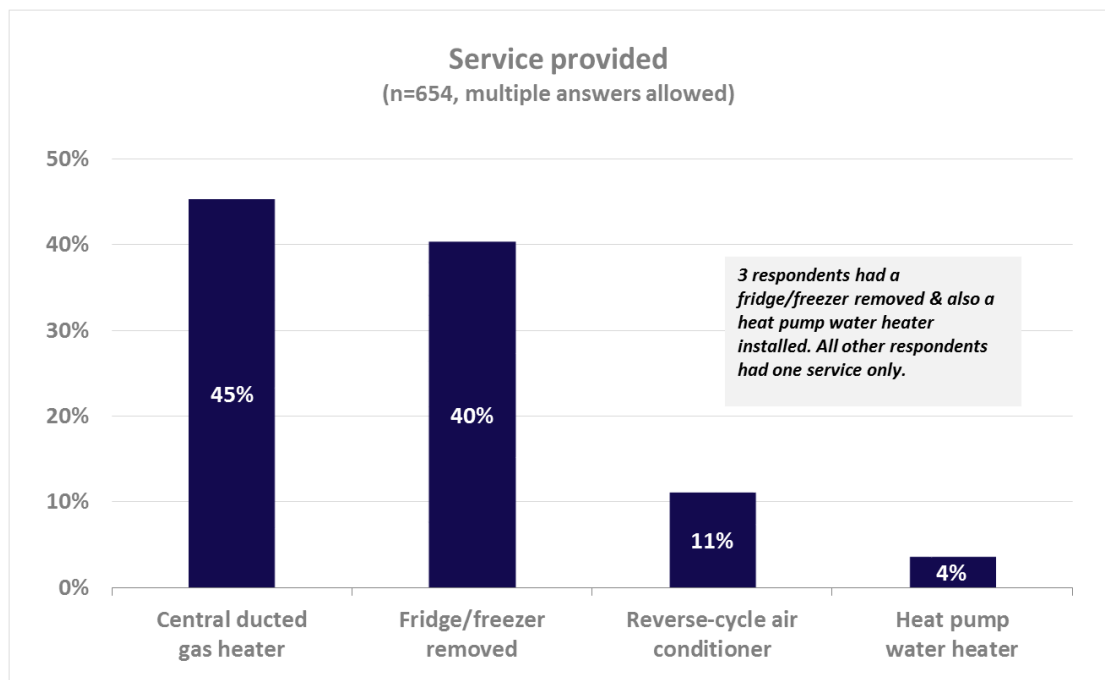
In addition to the random sampling error there may also be some forms of non-random sampling error which may have affected results. These include residents unreachable by phone, the proportion of non-respondents (refusals, no answers etc.) and/or imperfections in the survey design. However, steps have been taken at each stage of the research process to minimise such errors wherever possible.

## Section A: Residential Survey

### Part A1: Service Experience

The residential survey commenced with a question relating to the type of service provided:

**Graph A1.1: Service Provided**



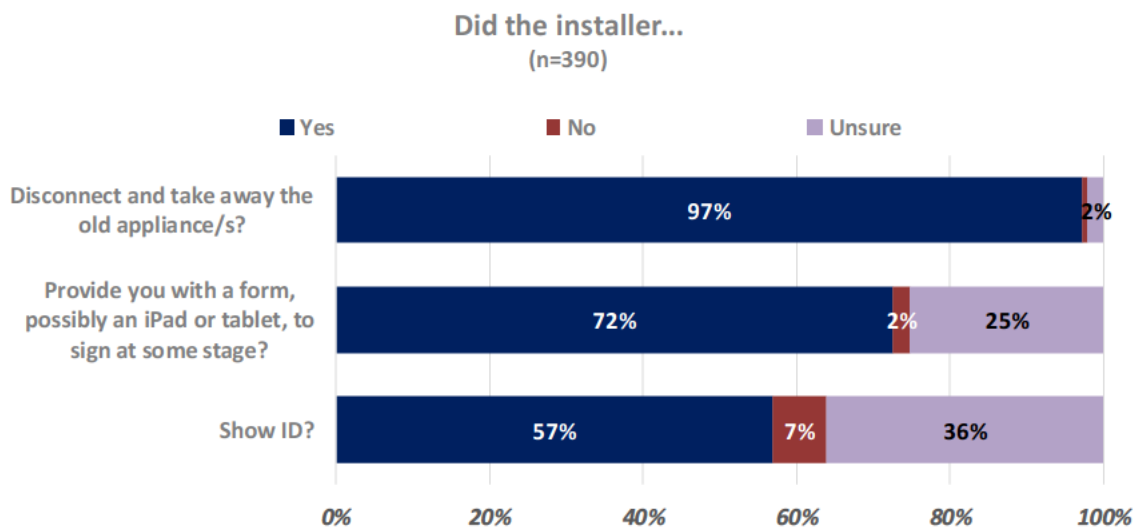
Respondents were split relatively evenly between those purchasing a central-ducted gas heater and those having a fridge or freezer removed. A further 11% had a reverse-cycle air conditioner installed, while only a small proportion (4%) had a heat pump water heater installed.

**Table A1.1: Service breakdown, by priority vs. other**

Service	Priority	Other
Heat Pump Water Heater	3%	3%
Central ducted gas heater	46%	45%
Reverse cycle air conditioner	21%	3%
Fridge/freezer removed	30%	49%

As Table A1.1 shows, priority households were significantly more likely than non-priority households to have had a reverse-cycle air conditioner installed under the scheme<sup>2</sup>. Conversely, non-priority households were significantly more likely (proportionally at least) to have had a fridge/freezer installed. There were no differences in the other two services provided.

**Graph A1.2: Installer behaviours**



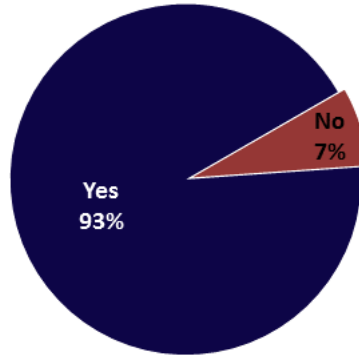
The vast majority of respondents (97%) recalled the installer disconnecting and removing the old appliance. However only 72% recalled signing a form (similar for both types of household) and only 57% recalled ID (though most of the remainder were unsure). Recall was higher among priority households (at 65%, against 48% of non-priority households).

*(Continued next page...)*

<sup>2</sup> The Directorate understands this is largely because many of the 2018 reverse cycle air conditioner upgrades were delivered through the ACT public housing energy efficiency upgrade program, all of which were to priority households.”

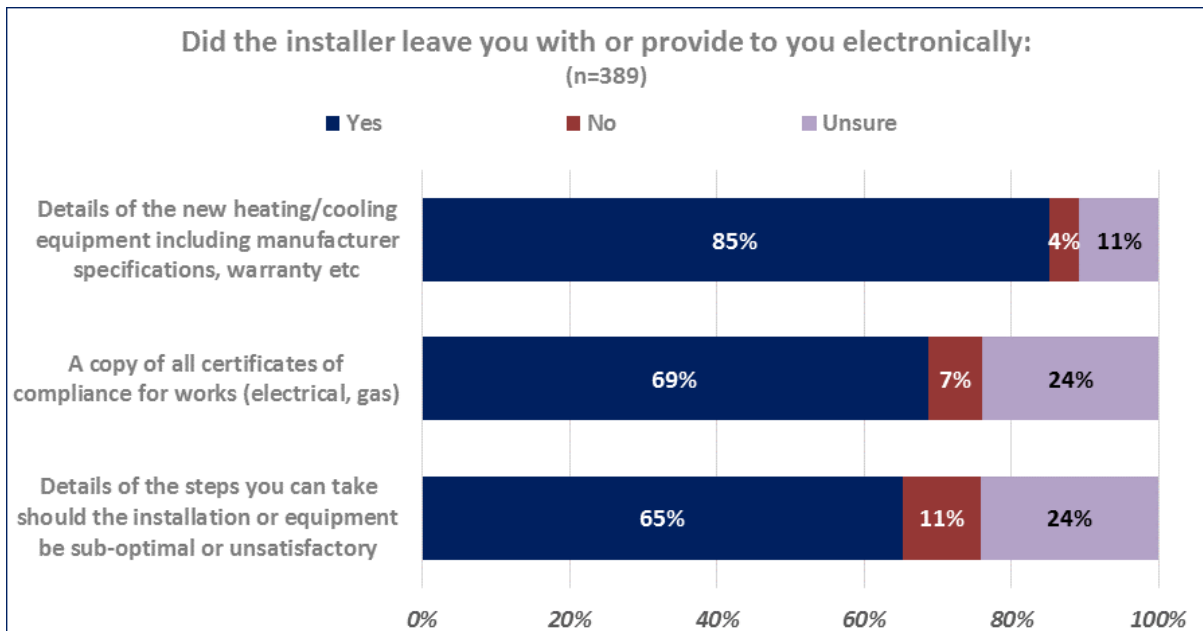
**Graph A1.3: Installer instructions**

Did the installer leave instructions and/or demonstrate the use of the appliance adequately?  
(n=390)



Meanwhile 93% recalled the installer leaving instructions and/or demonstrating the use of the appliance adequately.

**Graph A1.4: Installer provision of documents**

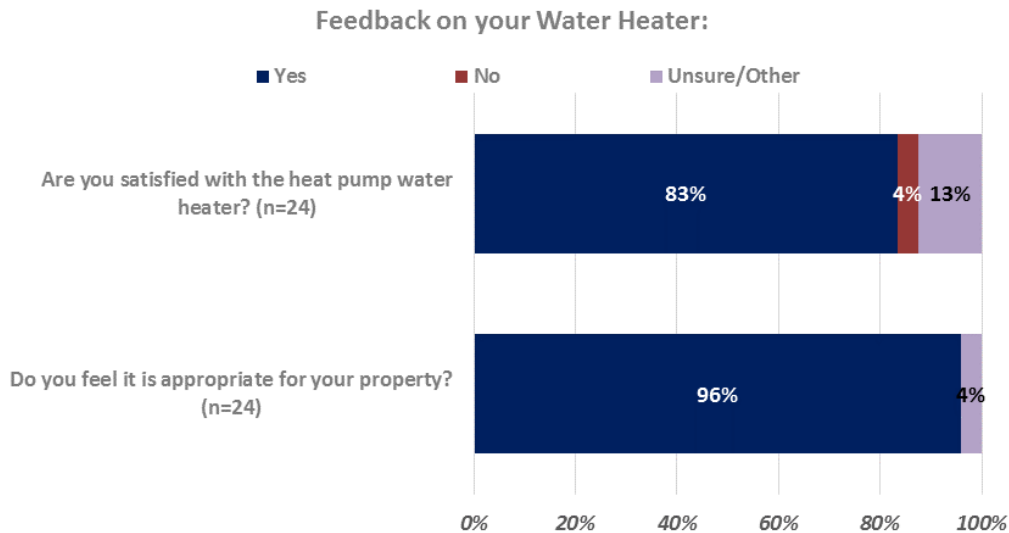


Most respondents (85%) recalled the installer leaving them with details of their new equipment. However only around two-thirds each remembered being provided with certificates of compliance (59% of priority households, 78% of other) and/or details of what to do in the case of problems (57% priority, 74% other).

## Part A2: Satisfaction with Product Provided

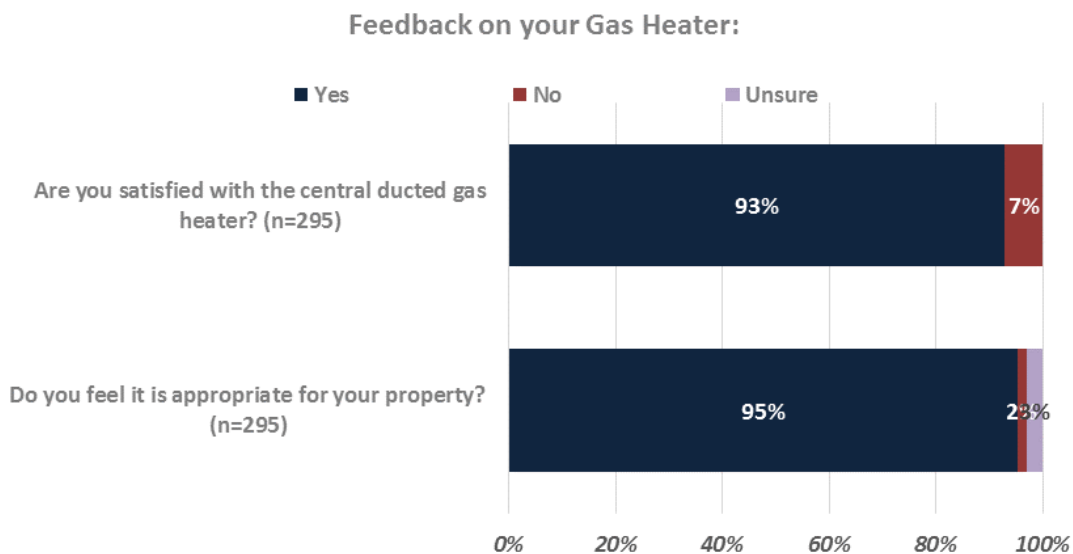
The next series of questions sought to understand the residential participants' satisfaction with the product they received as part of the scheme.

### Graph A2.1: Heat Pump Water Heaters



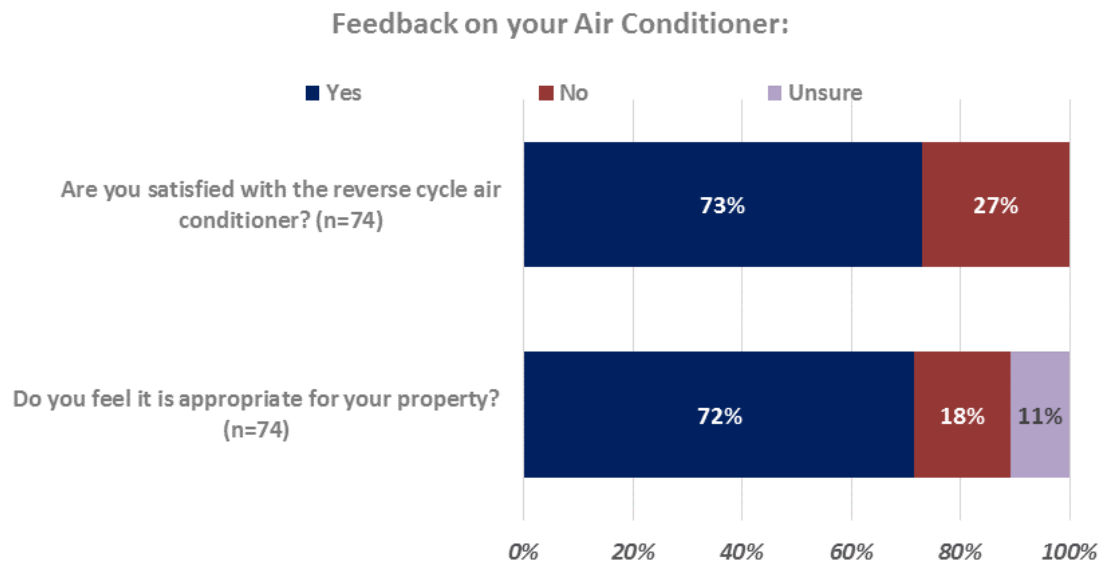
More than four out of five (of 24) respondents were satisfied with their heat pump water heater, and almost all (96%) felt it was appropriate for their property. (There were no differences between priority and non-priority households.)

### Graph A2.2: Gas Heaters



Satisfaction was also extremely high for the 295 respondents who had had reverse-cycle air conditioners installed.

**Graph A2.3: Reverse-cycle Air Conditioners**

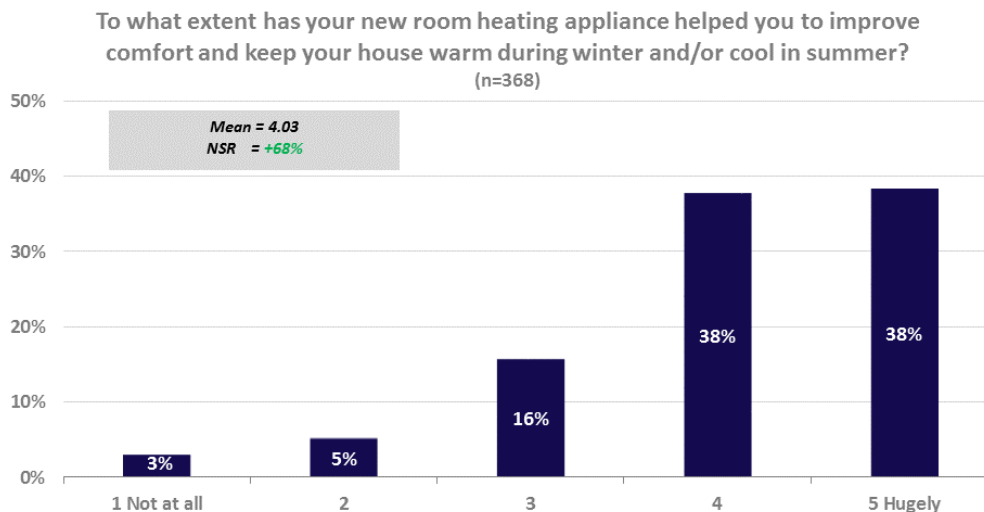


Feedback was also high for air conditioners, with 73% satisfied and 72% feeling it was appropriate. In each case priority households were less happy, at 70% and 68% for the two questions (against 85% each for non-priority households).

## Part A3: Impact of the Product

The next series of questions sought to understand the impact that the new product had made in the scheme recipients' homes:

### Graph A3.1: Improved comfort and room temperature



Respondents were enthusiastic about the impact of their new appliance on keeping their home comfortable in summer and winter, with 75% believing it had made a substantial impact<sup>3</sup> and 68% more positive than negative. (Mean scores were nearly identical between priority and non-priority households, at 4.01 and 4.05 respectively).

Those who reported that the installation had helped to improve comfort focussed on the efficiency and effectiveness of the new appliance:

- ’ *I only had a radiator heater in the lounge room, but now with the gas heater there is a more even heat throughout house and it’s not costing as much in electricity.*
- ’ *(Gas heater) seems fairly consistent with even temperatures throughout the home.*
- ’ *(Gas heater) increased the warmth of heat flow with the larger ducts they installed.*
- ’ *(Gas heater) heats the house up much more quickly than the old heater.*
- ’ *(Air conditioner) takes 5 mins to start and warms the area up quickly.*
- ’ *(Gas heater) seems to be more efficient and heats up the house more quickly.*

Those who indicated that the installation hadn’t changed the level of comfort in the home were sometimes unhappy with the quality of the system:

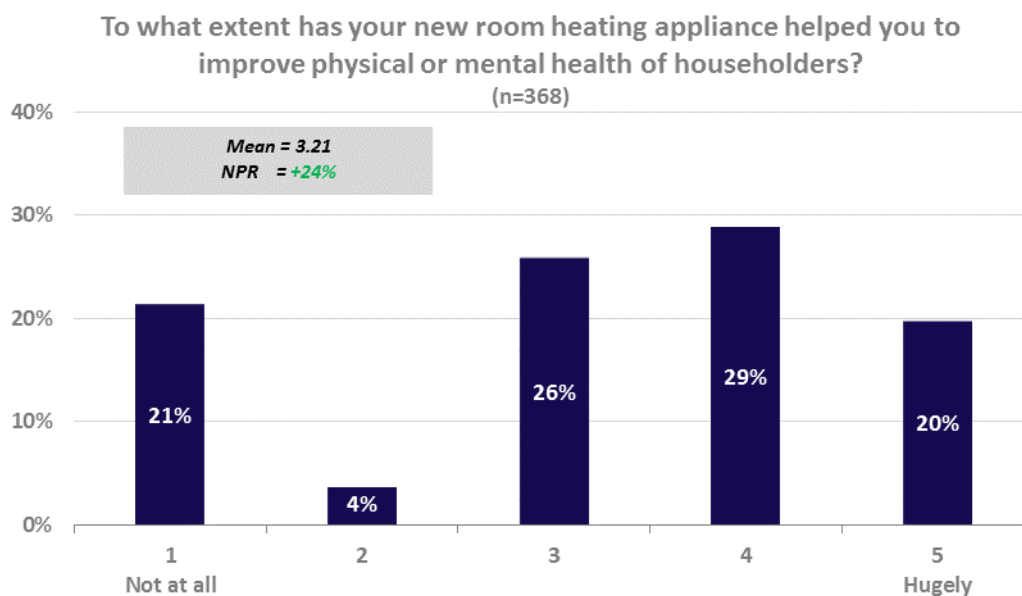
- ’ *(Air conditioner) is not heating up the dining room or bedrooms, it only heats up the lounge room.*

<sup>3</sup> Defined here a score of 4 or 5 on the 5-point Likert scale

And some focussed on the energy saving positives offered by the new appliance:

- ’ *The old heater was better, it heated up quicker. I’d rather my old one but my bills are a bit cheaper (with new gas heater), this one is a 6 star.*
- ’ *(Gas heater) hasn’t drastically changed the heating difference compared to last heater -hopefully the savings will.*
- ’ *The previous (gas heater) was working okay, it was getting a bit old, thought it was a good deal to upgrade.*

**Graph A3.2: Improved Physical or Mental Health of Household members**



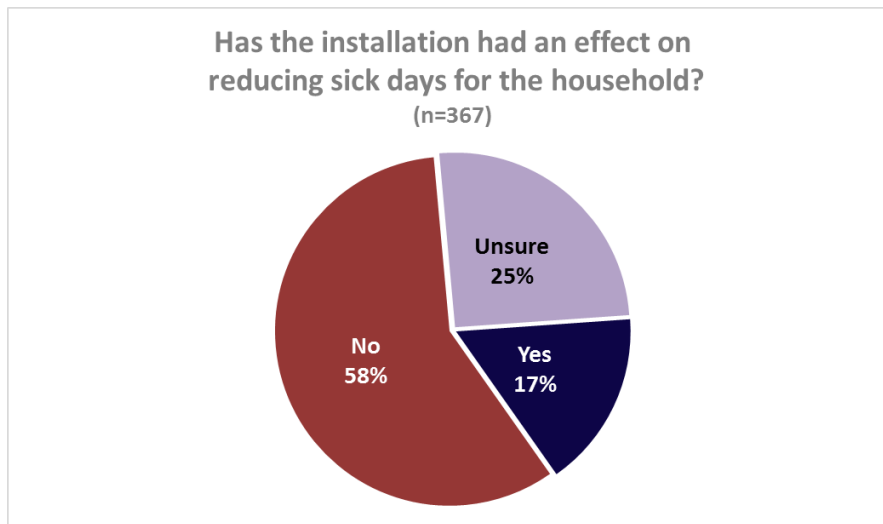
Respondents were also impressed with the impact of new appliances on improved physical or mental health – with 79% saying the new appliances had made some sort of improvement and one out of five believing it had made a "huge" difference. Priority households were slightly more positive than others, with mean scores of 3.33 and 3.10 respectively.

Those who had experienced health benefits were asked to explain them. While some were simply happy to be warmer, for others the installation had impacted greatly on their physical and mental health:

- ’ *My son has asthma and it was bad in winter, I would say this has improved. Because the cost is cheaper, we can now keep the house warmer/use it more.*
- ’ *My husband is quite unwell, he struggles with the heat in summer and suffers with the cold in winter. In summer the air conditioning cooled him down and so far he hasn’t been to hospital for pneumonia this winter.*
- ’ *Less illness for the kids.*
- ’ *I've got a heart problem - I have a pace maker so my blood is very thin and you need to be warm all the time.*

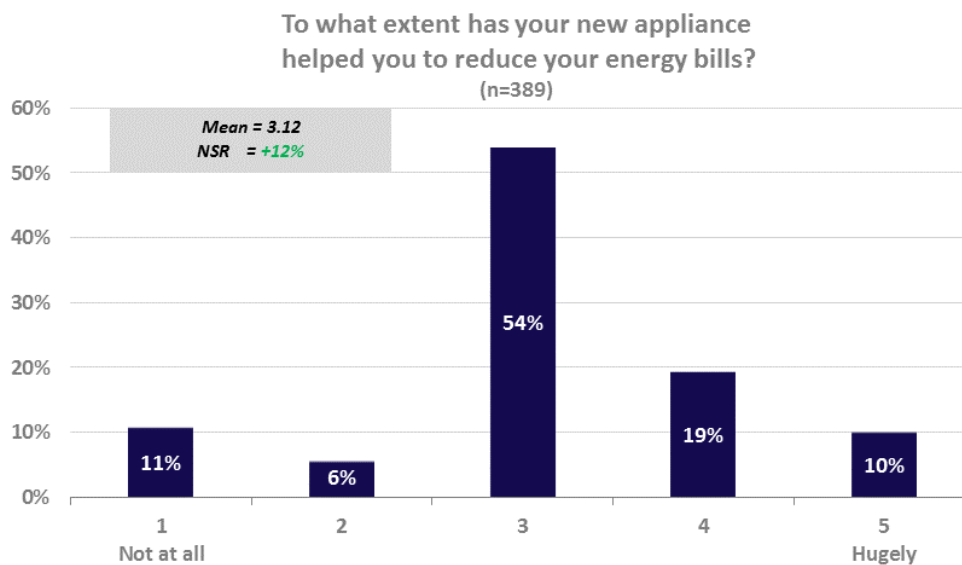
- ’ *Has helped with my arthritis and asthma. Helped my son who is ADHD with asthma and has helped with his mental health.*
- ’ *Easier on joints and muscles. More cosy and warm when waking and getting out of bed (we have it on a 2-hour timer between 6 and 8 am). Our mental health has been a lot better to because we aren’t freezing in the winter time.*

**Graph A3.3: Impact on sick days**



Meanwhile 17% felt the new installation had reduced household sick days. (This was similar between priority and non-priority households.)

**Graph A3.4: Impact on Energy Bills**



Nine out of ten respondents believed the new appliances had helped them reduce their energy bills, with 29% believing it had made a substantial improvement. (Results were similar between both classes of households.)

When asked to indicate the savings received, many were unsure as either were yet to receive a bill or unable to identify the difference but had high hopes:

- ’ *Cannot compare yet. Bill is next month.*
- ’ *Don’t know yet, we have not had a full winter bill.*
- ’ *Have not tested/calculated differences yet.*
- ’ *Haven’t run it enough to check difference in bills from last year.*
- ’ *I won’t know until next bill, I’m hoping it will be cheaper because my new heater has a 6 star rating, whereas my old was only 3 stars.*

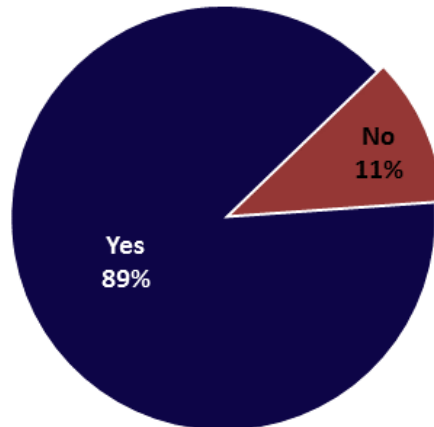
Those who were able to identify a specific cost saving, suggested the savings were around 15-20% per year, or gave a \$ saving per bill or per annum:

- ’ *About 20%.*
- ’ *Roughly 15%.*
- ’ *Saved at least \$600 annually.*
- ’ *Roughly \$1000 a year.*
- ’ *Probably every month overall \$300 - \$400 a year.*
- ’ *On the winter bill saved about \$400.*

## Part A4: Overall Perceptions of the Scheme

Graph A4.1: Overall satisfaction with the scheme

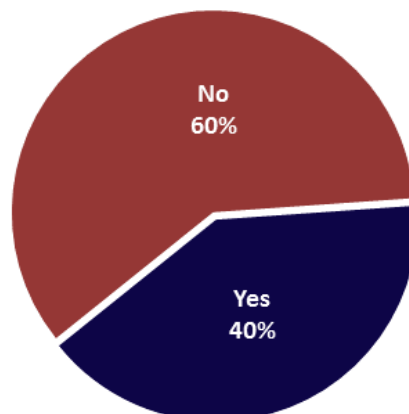
Are you satisfied with the installation as a whole?  
(n=390)



Almost nine out of ten respondents were satisfied with the installation (86% priority, 92% other).

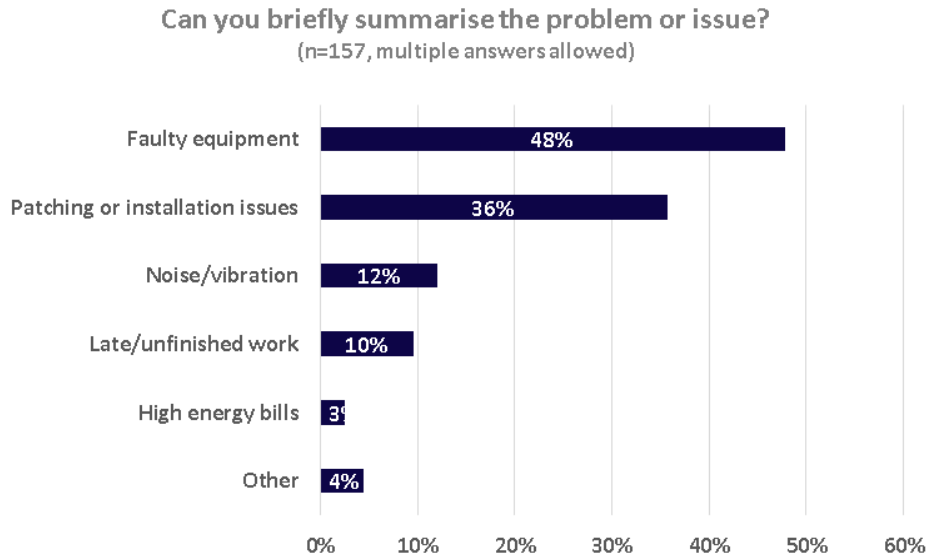
Graph A4.2: Perception of problems with the installation

Has the installation had any issues or problems?  
(n=390)



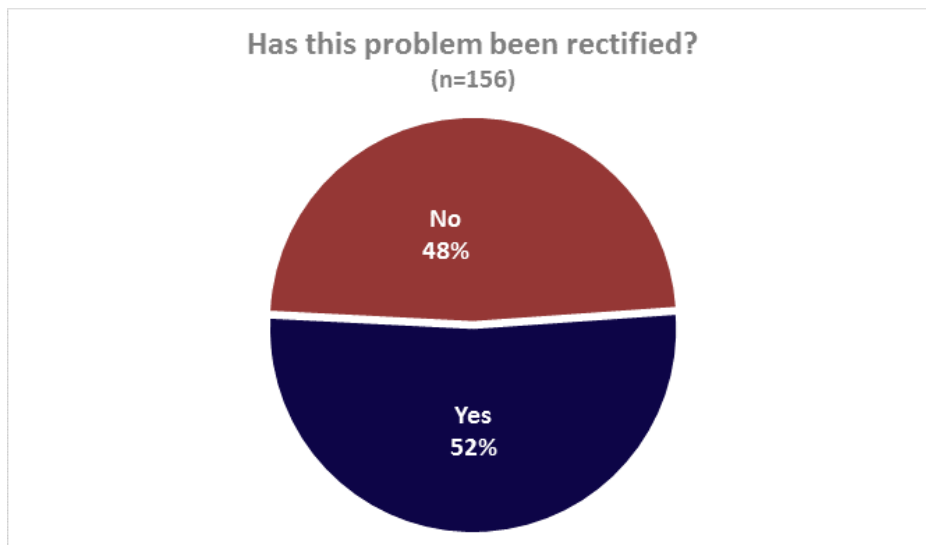
However two out of five respondents (consistent by household type) said that the installation had led to some issues or problems.

**Graph A4.3: Can you briefly describe the problem or issue?**



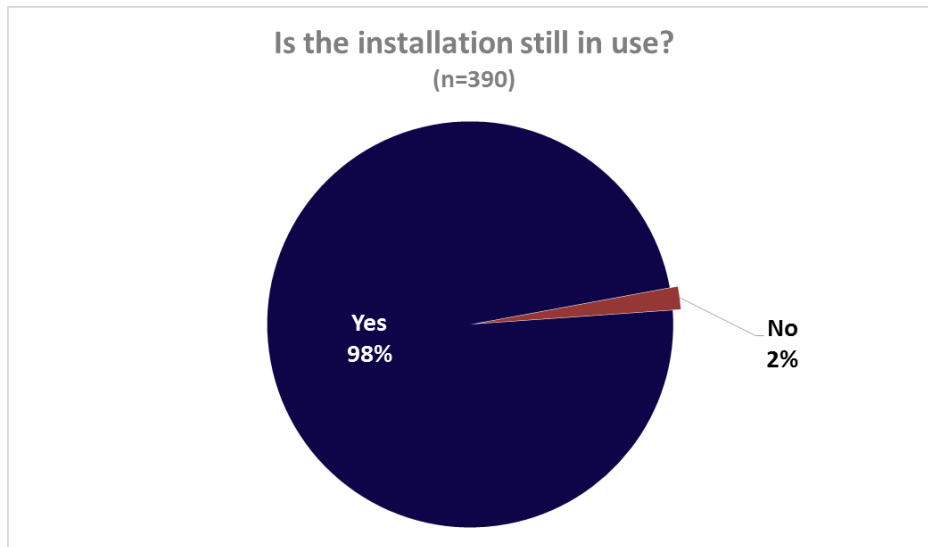
Of those who had had issues, the largest proportion (48%) related to faulty equipment, followed by patching or installation issues (36%) and excess noise or vibration (12%). (The verbatim comments are included in a separate Excel file.)

**Graph A4.4: Has the problem been rectified?**



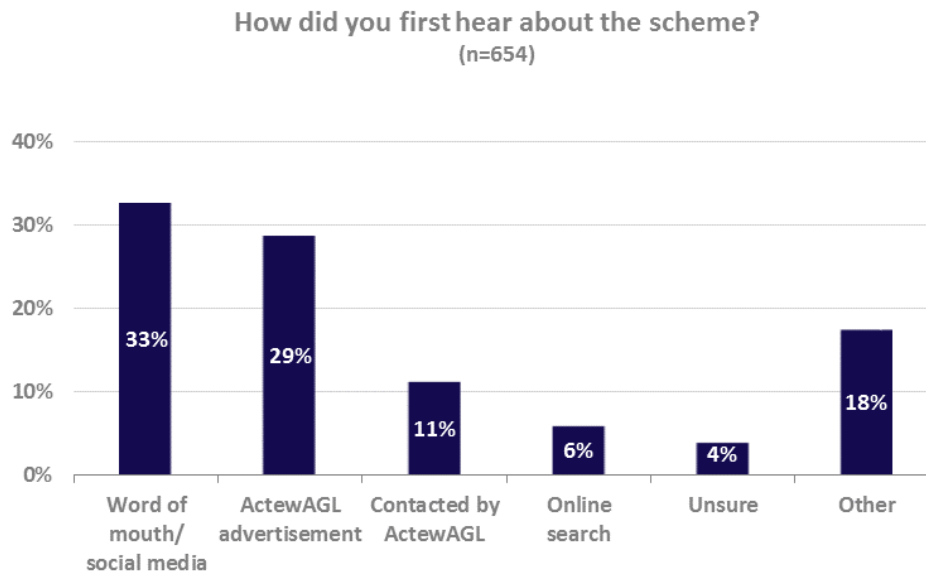
Just over half of those with problems – or 19% of all those with installations - claimed that problems or issues had not been resolved. There was a significant difference between priority and other households, with only 41% of priority households saying the issue had been rectified (against 66% of other).

**Graph A4.5: Continued use of Installation**



In all but 2% of cases (totalling seven respondents), the installed device was still in use.

**Graph A4.6: Sources of Information**



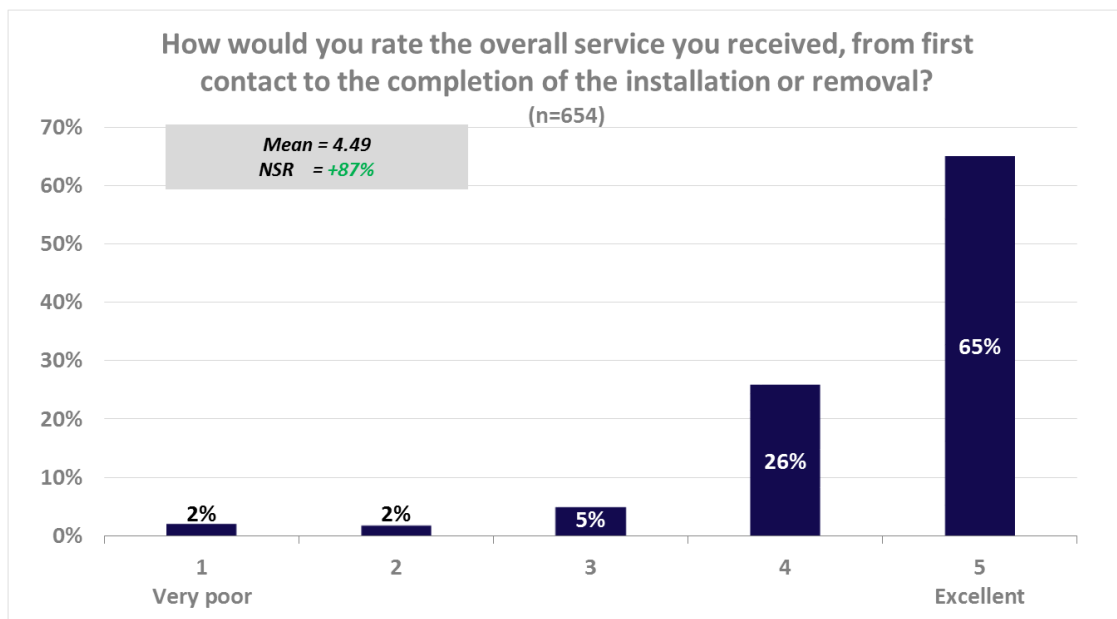
Word-of-mouth and ActewAGL ads were the main sources of information, while 11% had been contacted by ActewAGL. "Other" includes many people saying they went pro-actively into ActewAGL - but it's hard to imagine that most of these weren't in some way influenced (perhaps subliminally) by advertising or word-of-mouth.

**Table A4.1: Sources of information, by priority vs. other**

Source of information	Priority	Other
Contacted by ActewAGL	19%	5%
ActewAGL advertisement	27%	30%
Word of mouth/social media	32%	33%
Online search	0%	10%
Unsure/can't recall	4%	4%
OTHER	19%	17%

Priority households were significantly more likely to have been contacted by ActewAGL than others, while non-priority households were more likely to have searched for such offers online (though perhaps following up an advertisement in some cases).

**Graph A4.7: Overall perception of the service received**



Overall perceptions were extremely positive, with 65% rating the overall experience as "excellent" and a further 26% as "good". Just 4% classed it as "poor" or "very poor". Mean score was almost identical between priority and non-priority households (at 4.48 and 4.51 respectively).

As one would expect, those who had had problems or issues post-installation were significantly less satisfied than those who had not (with mean satisfaction of 4.09 and 4.62 respectively).

**Table A4.2: Overall satisfaction, by type of installation**

Service	Mean	N	SD
Heat pump water heater	4.57	21	1.028
Central ducted gas heater	4.48	294	0.787
Reverse cycle air conditioner	4.05	73	1.129
Fridge/freezer removed	4.64	264	0.768

By type of installation, there was little difference in satisfaction scores between those having a fridge or freezer removed, or a heat pump or central-ducted gas heater installed. While satisfaction levels were lower with reverse-cycle air conditioners, the mean of 4.05 is still impressive.

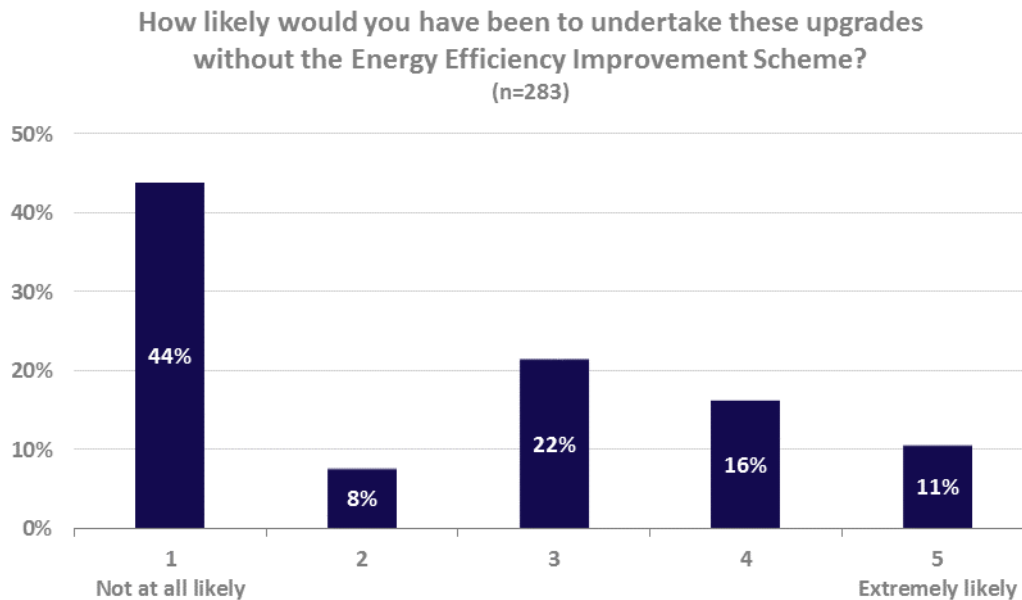
We have used a word cloud to summarise their additional comments to this question (with the size of the word denoting the relative number of times it was mentioned). The vast majority of words were neutral to positive, indicative of the high satisfaction scores for each of these services.



*(Continued next page...)*

Priority households were next asked if they would have undertaken these tasks without EEIS:

**Graph A4.8: Likelihood of undertaking the upgrades without the scheme**



Some 44% of respondents in priority households said they would have been "not at all likely" to have undertaken upgrades without the EEIS. This "not at all likely" ranged from 33% for water heaters and 37% for gas heaters, up to 77% for reverse-cycle air conditioners.

Those who indicated that they would have undertaken the upgrades without the scheme often indicated that their old installation had broken down or required an upgrade:

- ” *My old heater had broken and needed replacing regardless.*
- ” *I would have done it anyway but it made the process simpler for me.*
- ” *Fridge was 25 years old and needed to be discarded. ACT AGL never offered incentive for going ahead with EEIS.*
- ” *I was thinking of getting a new fridge but this pushed me.*

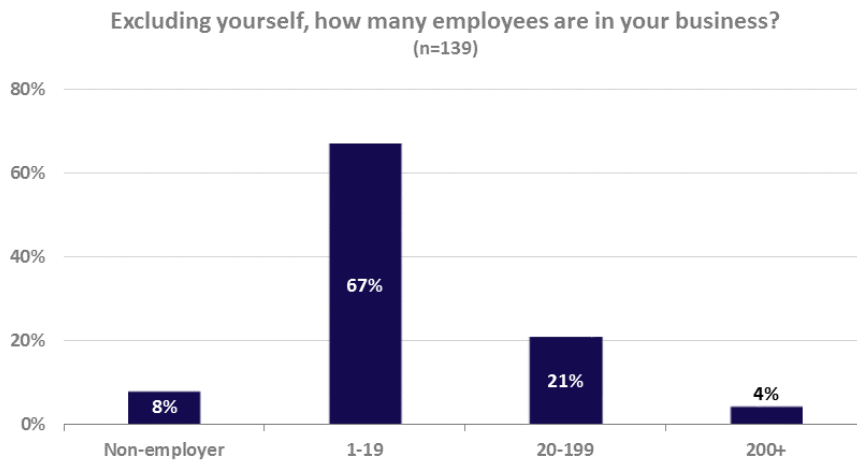
And those who were unlikely to have undertaken the upgrades without the scheme predominantly cited cost as the reason why:

- ” *Wouldn't have done it for a while because of cost.*
- ” *Without the rebate it would not have happened - too costly.*
- ” *Unable to have managed. The scheme was amazing and helped me a lot.*
- ” *My old one was not broken so I was not going to spend the small amount of money I have on a new one.*

## Section B: Business Survey

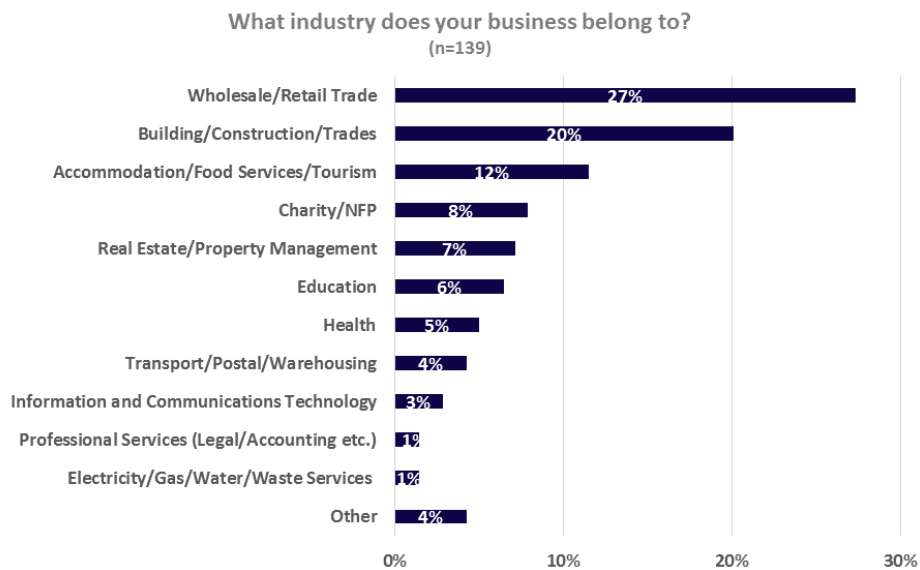
### Part B1: Respondent characteristics

Graph B1.1: Employees in business



Depending to what extent the sample (n=139) represents the overall cohort for this program, it appears to have been targeted – or at least received the most enthusiastic take-up – from smaller firms. Three-quarters of respondents worked in firms with 19 staff or less, and this included 8% with no staff.

Graph B1.2: Industry



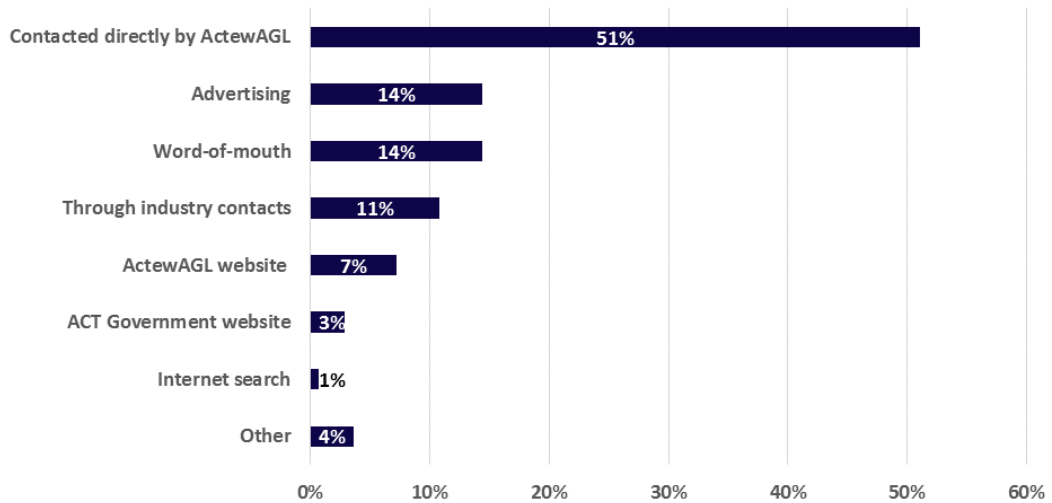


The largest proportion of respondents (27%) worked in retail/wholesale industries, followed by construction (20%), food and accommodation (12%) and charities/not-for-profits (8%). "Other" included two manufacturers, a hire company and a cleaning contractor.

## Part B2: Information Sources

**Graph B2.1: How did you first find out about ActewAGL's lighting/appliance upgrade program?**

How did you first find out about ActewAGL's lighting/appliance upgrade program?  
(n=139, multiple answers allowed)

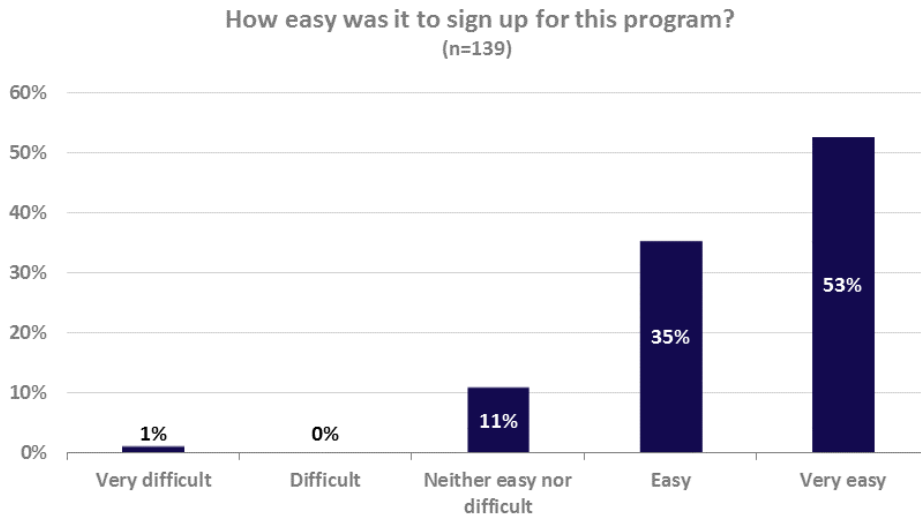


Half of all respondents had been approached directly by ActewAGL, with advertising, word-of-mouth and industry contacts also playing important lead sources.

These results were consistent by company size.

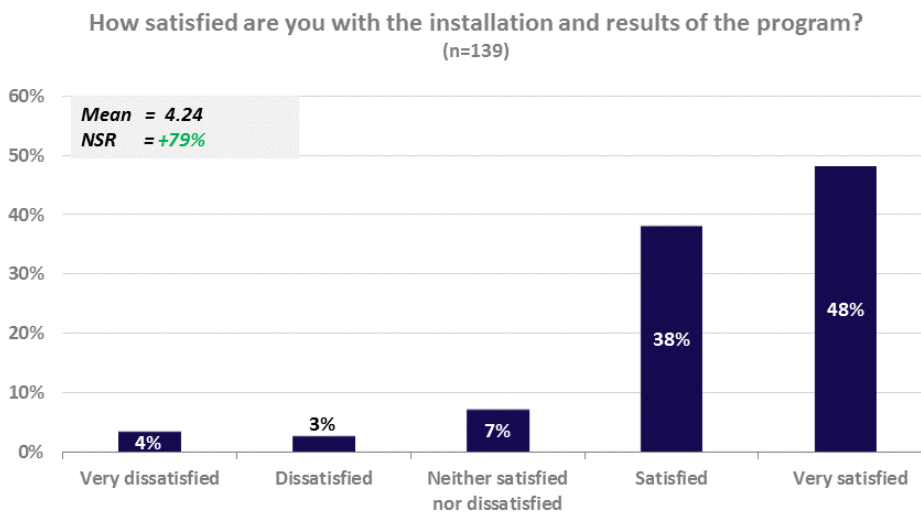
## Part B3: Satisfaction with program

Graph B3.1: How easy was it to sign up for this program?



Almost nine out of ten respondents said the process of signing up was either "easy" or "very easy". And pleasingly only two respondents said it was difficult. There were no significant differences by company size.

Graph B3.2: How satisfied are you with the installation and results of the program?

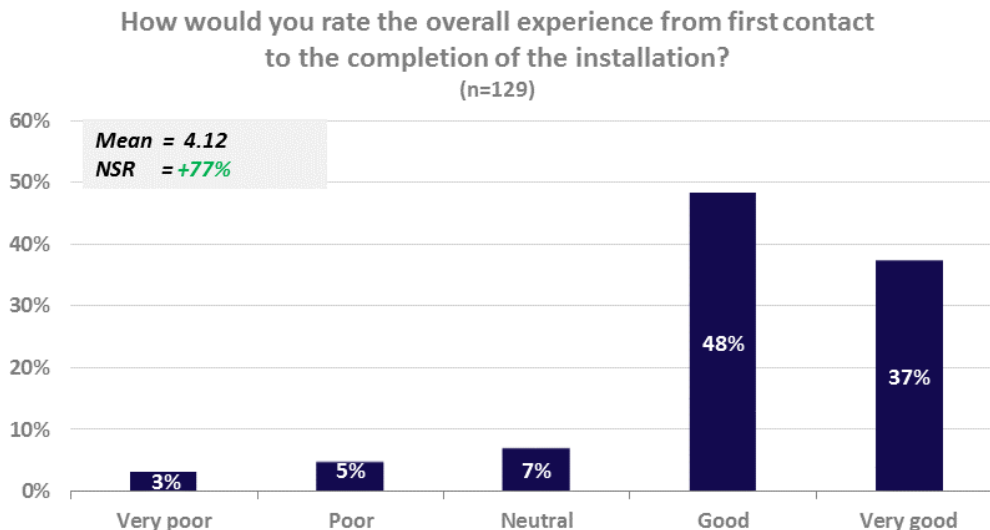


Likewise, satisfaction was extremely high with installation and results. Some 86% of those taking part in the online survey were either satisfied or very satisfied, against just 7% who were dissatisfied (for a net satisfaction rating of +79%).

Those (nine) who were dissatisfied were then asked why this was the case. Their verbatim responses are shown below:

- ’ *We were originally advised that we were eligible then ineligible then eligible again. Their office provided conflicting information and repeatedly failed to call me back. Disgusting and very unprofessional!*
- ’ *We had to pay an electrician to come and fix all the lights up after they left. They also did not complete the work.*
- ’ *Took 5 months for lights to be changed. Also the electricity bill did not reduce at all after the lights were installed.*
- ’ *The installer came out once and indicated it was too hard for him. No one has ever been back*
- ’ *The electricians took longer than first agreed and then left a very big mess without cleaning up after themselves.*
- ’ *Only half the lights in our building were changed.*
- ’ *Job has never been completed.*
- ’ *I am still waiting on your representative to contact me. I have left numerous messages with her but to no avail. She does not answer her mobile & does not respond, very frustrating!!!*
- ’ *Could not replace all the lights due to the age of them.*

**Graph B3.3: How would you rate your overall experience from first contact to the completion of the installation?**

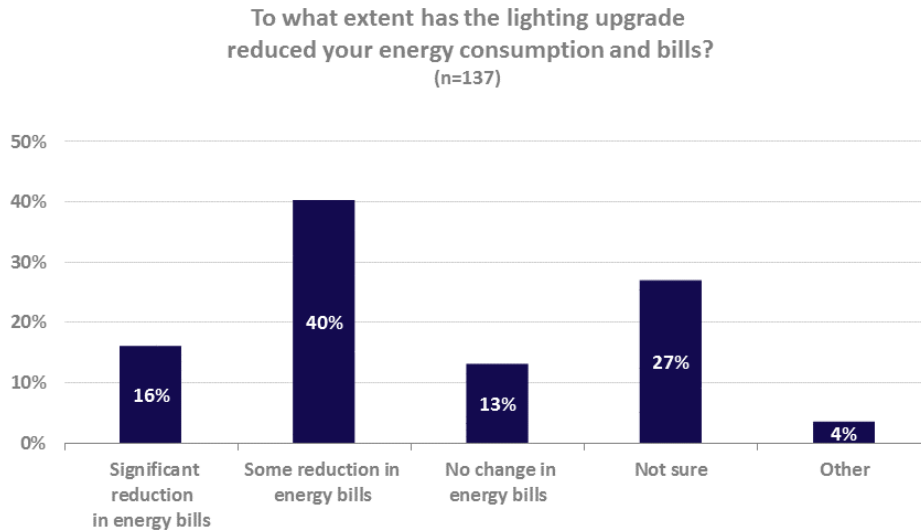


Overall satisfaction was again very high, with 85% saying the experience was either good or very good. As one would expect, there was an almost perfect correlation between the scores respondents provided in Graphs B3.2 and Graph B3.3.

Results for all satisfaction questions were consistent between larger and smaller companies.

## Part B4: Financial impact

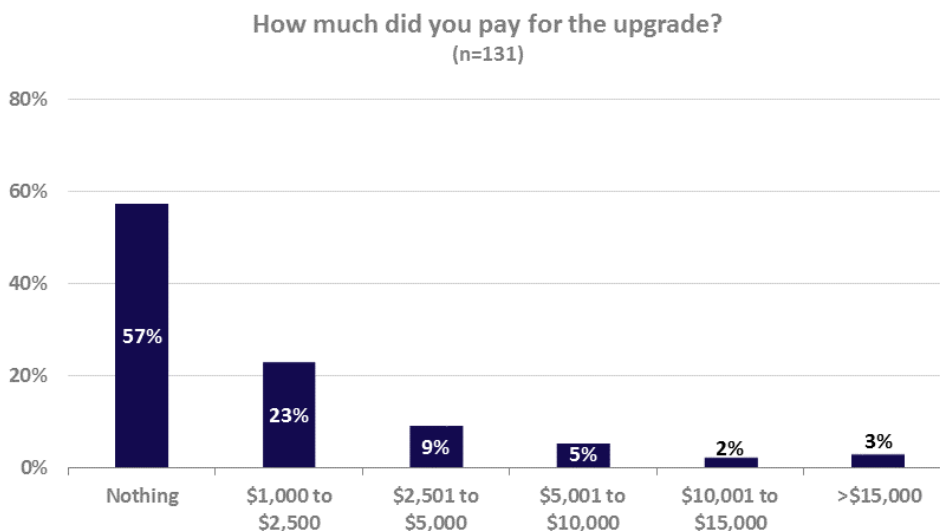
**Graph B4.1: To what extent has the lighting upgrade reduced your energy consumption and bills?**



One in six respondents (16%) had noted a "significant" reduction in energy bills since the lighting upgrade, with a further 40% seeing some reduction.

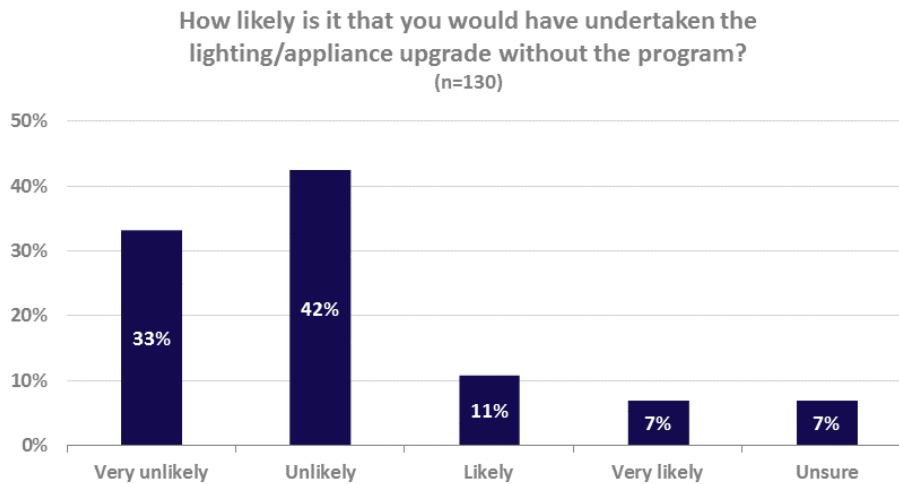
The question relating to the amount saved was poorly answered by most. However five respondents reported a quarterly saving of \$2000 or more – and three of these had less than 20 employees. Of the other (18) respondents who were prepared to nominate a figure, these varied from \$50 to \$800 a quarter – with a quarterly mean of \$225 saved by this cohort. (Adding in the five with \$2000+ savings increased this mean to \$650 per quarter.)

**Graph B4.2: How much did you pay for the upgrade?**



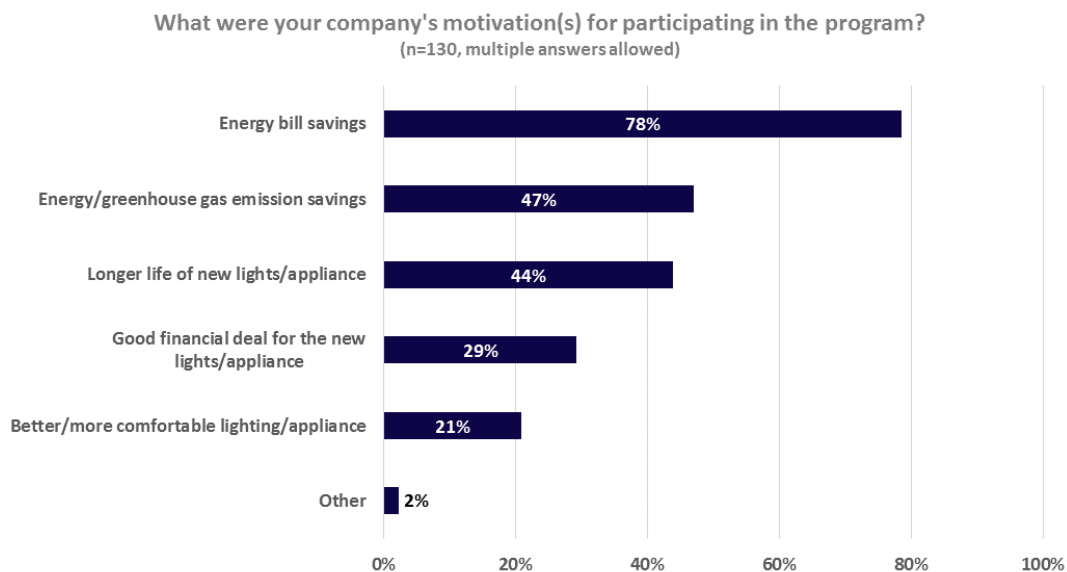
The majority of those surveyed (57%) had spent nothing on their upgrade. While very few (10%) had spent more than \$5,000, this did include 35% of larger firms (i.e. with 20+ employees) against just 3% of smaller companies.

**Graph B4.3: How likely is it that you would have undertaken the lighting/appliance upgrade without the program?**



Three-quarters of respondents said they would have been unlikely to have undertaken the upgrade without the EEIS program. Larger companies were significantly more likely to say they would have undertaken the upgrade regardless (at 27%, against 9% of smaller firms).

**Graph B4.4: What were your company's motivation/s for participating in the program?**



Unsurprisingly, energy bill savings were far and away the major motivator for participation in the scheme – nominated as a factor by 78% of those surveyed. However greenhouse gas emission reductions and longer lighting/appliance life were also considered important factors in participation (at 47% and 44% respectively).

Longer life was a significantly more important factor for larger companies (at 58%, against 38% for smaller firms).

## Part B5: Awareness of energy-saving technologies and other comments

When asked if they were aware of any other energy efficiencies that could be supported by government programs, respondents struggled to articulate anything beyond solar panels (mentioned by 11 businesses) – a clear case of people "not knowing what they don't know".

Thirty two respondents chose to make additional comments. Their verbatim comments are as follows:

- *A very good program and handled well*
- *Cheaper power for business cost increase over 150% over last 3 years but reduced usage by lot. Have decreased trading hours.*
- *Efficient process undertaken by well trained/experienced staff*
- *Finish the job*
- *Great program and shows that the government is serious about climate change.*
- *Great work*
- *I am really happy with our upgrade, I was hoping I could have some more lights changed as we have had a recent expansion to our fitout*
- *Include other types of lights - e.g. fridge and sign lights*
- *Is it possible to have job completed?*
- *It was performed quickly and efficiently and has met all of our expectations in terms of better lighting and financial savings.*
- *It would have been nice to have some warm white bulbs rather than the stark white bulbs, some people have complained that the bulbs are too bright for their eyes.*
- *Not fair that the small business have to pay and the big one don't*
- *Not sure why I am getting this survey when building assessment and upgrade is yet to be undertaken?*
- *Thank you (x 5 respondents)*
- *The complex I manage has a large amount of the thinner lighting tubes that are not on the replacement program*
- *The first group of electricians used weren't very satisfactory in that they left a mess, left half way through the first day and then didn't return for ages, but the second lot were much better.*
- *The team doing the work were very efficient.*
- *The team were very co-operative and in and out in a very short time*
- *They have not installed yet*
- *Very disappointed with my experience dealing with the management team.*
- *Very happy*
- *Very satisfied*
- *We had some problems with the installers doing the job. Quoting one thing and then trying to charge differently. The installers safety was quite poor also.*
- *We have had some issues with the lights failing but they have been replaced promptly.*
- *We just had the light bulbs replaced. Or later turned out there was another scheme where the light fittings could have been upgraded to much more sustainable ones.*
- *We never met the inspector when the job was completed*
- *While Energy usage has dropped, the Energy price has increased and absorbed all the savings. We still have fluoro emergency lighting, which does result in inconsistent lighting in some areas*
- *Your representatives' failure to contact me is having a negative effect directly on your company.*

## Appendix 1: Resident Questionnaire

### Version 1 5556\_EEIS\_2019\_VERSION\_2 Last modified:12/06/2019 11:11:18 AM

- Q1.** Hi my name is (name), and I'm calling from Jetty Research on behalf of the ACT Government. I'm calling to follow up on the energy savings appliance upgrade or fridge freezer buyback that took place in your home within the last year. I just have a few questions to ask about that installation to see if you're happy with how it all went and ensure everything was carried out properly. Do you have a moment to talk to me now?

**Offer a CALL BACK. The visit would have involved either the installation of a heater or hot water system, or removal of a fridge or freezer**

Yes	1
No	555

*Answer If Attribute "No" from Q1 is SELECTED*

Q1

- Q2.** Thank you for your time. Have a great afternoon/evening.

**End**

- Q3.** RESEARCHER: Select type.

**USE OPTIONS (top right of screen)**

Priority household	1
Other	2

Q3

- Q4.** May I have your first name for the survey?

**Enter name**

Q4

- Q5.** And [Q4], have you had a new water heater or space heater installed within the past 18 months or so?

**FIRST THREE PROMPTED. (BUT WILL ONLY BE ONE OF CENTRAL-DUCTED GAS HEATER OR REVERSE-CYCLE AIR CONDITIONER)**

Heat pump water heater	1
Central-ducted gas heater	2
Reverse-cycle air conditioner	3
None of these	4

Q5\_1  
Q5\_2  
Q5\_3  
Q5\_4

- Q6.** Did you have a fridge or freezer removed?

*Do not answer If Attribute "Heat pump water heater" from Q5 is SELECTED OR  
Do not answer If Attribute "Central-ducted gas heater" from Q5 is SELECTED OR  
Do not answer If Attribute "Reverse-cycle air conditioner" from Q5 is SELECTED*

Yes	1	Go to Q31
No	555	Go to Q2

Q6

**Q7. Did the installer show ID?**

Yes	1	
No	555	Q7

**Q8. Did the installer provide you with a form, possibly an iPad or tablet, to sign at some stage?**

Yes	1	
No	555	Q8
Unsure	666	

**Q9. Did the installer disconnect and take away the old appliance/s?**

Yes	1	
No	555	Q9 Q9

**Q11. Did the installer leave instructions and/or demonstrate the use of the appliance adequately?**

Yes	1	
No	555	Q11

**Q12. Did the installer leave you with or provide to you electronically:**

**PROMPTED**

	Yes	No	Unsure	
Details of the new heating/cooling equipment including manufacturer specifications, warranty etc	1	555	666	Q12_1
Details of the steps you can take should the installation or equipment be sub-optimal or unsatisfactory	1	555	666	Q12_2
A copy of all certificates of compliance for works (electrical, gas)	1	555	666	Q12_3

**Q13. Are you satisfied with the heat pump water heater?**

*Answer If Attribute "Heat pump water heater" from Q5 is SELECTED*

Yes	1	
No	555	Q13 Q13

**Q14. And do you feel it is appropriate for your property?**

*Answer If Attribute "Heat pump water heater" from Q5 is SELECTED*

Yes	1	
No	555	Q14
Unsure	666	

**Q15. Are you satisfied with the central-ducted gas heater?**

*Answer If Attribute "Central-ducted gas heater" from Q5 is SELECTED*

Yes	1	
No	555	Q15

**Q16. And do you feel it is appropriate for your property?**

*Answer If Attribute "Central-ducted gas heater" from Q5 is SELECTED*

Yes	1	
No	555	Q16
Unsure	666	

**Q17. Are you satisfied with the reverse-cycle air conditioner?**

*Answer If Attribute "Reverse-cycle air conditioner" from Q5 is SELECTED*

Yes	1
No	555

Q17

**Q18. And do you feel it is appropriate for your property?**

*Answer If Attribute "Reverse-cycle air conditioner" from Q5 is SELECTED*

Yes	1
No	555
Unsure	666

Q18

**Q19. On a scale of 1-5, where 1 is not at all and 5 is hugely, to what extent has your new room heating appliance helped you to improve comfort and keep your house warm during winter and/or cool in summer?**

*Answer If Attribute "Central-ducted gas heater" from Q5 is SELECTED OR  
Answer If Attribute "Reverse-cycle air conditioner" from Q5 is SELECTED*

**Rate out of 5**

1 Not at all	1	Go to Q21
2	2	Go to Q21
3	3	
4	4	
5 Hugely	5	

Q19

**Q20. Can you briefly explain the improvements?**

**PROBE if necessary**

---

Q20

**Q21. Using the same 1-5 scale, to what extent has your new room heating appliance helped you to improve physical or mental health of householders?**

*Answer If Attribute "Central-ducted gas heater" from Q5 is SELECTED OR  
Answer If Attribute "Reverse-cycle air conditioner" from Q5 is SELECTED*

**On a scale of 1-5, where 1 is not at all and 5 is hugely**

1 Not at all	1	Go to Q23
2	2	Go to Q23
3	3	
4	4	
5 Hugely	5	

Q21

**Q22. And what, if any, types of health benefits have you had?**

*Answer If Attribute "Central-ducted gas heater" from Q5 is SELECTED OR  
Answer If Attribute "Reverse-cycle air conditioner" from Q5 is SELECTED*

**RECORD benefits or type none**

---

Q22

**Q23. Has the installation had an effect on reducing sick days for the household?**

*Answer If Attribute "Central-ducted gas heater" from Q5 is SELECTED OR  
Answer If Attribute "Reverse-cycle air conditioner" from Q5 is SELECTED*

Yes	1
No	555
Unsure	666

Q23

**Q24. Using the same 1-5 scale, to what extent has your new appliance helped you to reduce your energy bills?**

**On a scale of 1-5, where 1 is the not at all and 5 is hugely**

1 Not at all	1
2	2
3	3
4	4
5 Hugely	5

Q24

**Q25. Can you provide an idea of how much you have saved?**

*Answer If Attribute "3" from Q24 is SELECTED OR  
Answer If Attribute "4" from Q24 is SELECTED OR  
Answer If Attribute "5 Hugely" from Q24 is SELECTED*

**RECORD**

Q25

**Q26. Are you satisfied with the installation as a whole?**

Yes	1
No	555

Q26

**Q27. And has the installation had any issues or problems?**

Yes	1
No	555

Q27

**Q28. Can you briefly summarise the problem or issue?**

*Answer If Attribute "Yes" from Q27 is SELECTED*

**RECORD**

Q28

**Q29. Has this problem been rectified?**

*Answer If Attribute "Yes" from Q27 is SELECTED*

Yes	1
No	555

Q29

**Q30. Is the installation still in use?**

Yes	1
No	2

Q30

**Q31. Now [Q4], how did you hear about the scheme?**

**UNPROMPTED**

Contacted by ActewAGL	1
ActewAGL advertisement	2
Word of mouth/social media	3

Q31

**Q32. How do you think you might be able to further reduce energy usage or energy bills in the future?**

**RECORD or type unsure**

Q32

**Q33. Which other energy efficient upgrade activities do you think would most help you to save energy?**

**RECORD or type dont know**

Q33

**Q34. Can you think of anything else the ACT government could be doing to help households reduce their energy usage or bills?**

**RECORD or type no**

Q34

**Q35. Using the same scale, where 1 is not at all likely and 5 is extremely likely, how likely would you have been to undertake these upgrades without the Energy Efficiency Improvement Scheme?**

*Answer If Attribute "Priority household" from Q3 is SELECTED*

1 Not at all likely	1
2	2
3	3
4	4
5 Extremely likely	5

Q35

**Q36. Can briefly explain why?**

*Answer If Attribute "Priority household" from Q3 is SELECTED*

Q36

**Q37. Using a scale of 1 to 5, where 1 is very poor and 5 is excellent, how would you rate the overall service you received, from first contact to the completion of the installation or removal?**

1 Very poor	1
2	2
3	3
4	4
5 Excellent	5

Q37

**Q38. Would you like to comment further on this?**

Q38

**Q39. Would you be willing to provide more information, such as energy consumption data, to the EEIS in the future to help monitor savings?**

Yes	1
No	555

Q39



**Q40. And can we provide your scores and comments along with your contact details to the ACT Government, or would you rather they remain confidential?**

Happy to share	1
Prefer to remain confidential	2

Q40

**Q41. And would you be willing to take part in future case studies about your experience in the program? This could include visits from ACT government staff, media and/or ministers for interviews, photographs, videos etc?**

*Answer If Attribute "5 Excellent" from Q37 is SELECTED*

Yes	1
No	555

Q41

**Q42. That brings us to the end of the survey [Q4]. The ACT government greatly appreciates your feedback. Did you have any questions before we finish? Have a great afternoon/evening.**

**End**