



Department
of Energy &
Climate Change

Evaluation of the Renewable Heat Premium Payment Scheme Phase Two

Annexes to the Technical Report

January 2015

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This annex contains the questionnaires and topic guides used to collect data from private households, social landlords, social tenants, community groups, households in the communities scheme, installers and certification bodies.

It should be noted that the questionnaires used to collect data from private households in the post installation and follow up census are included separately to this annex as they were administered before this evaluation contract was awarded.

The topic guides included in this annex contain prompts and probes for use by the interviewer. Prompts can be used by the interviewer to encourage the respondent to consider the question further and probes allow the interviewee to elaborate on the original response. These are suggestions and may or may not be used by the interviewer.

1. Private households with redeemed vouchers

1.1. Topic guide questions: Private householder telephone interviews with applicant

1.1.1. Introduction

Good morning/ afternoon/ evening, please can I speak to **[NAMED CONTACT]**?

My name is **[RESEARCHER NAME]** and I am calling from BMG Research, who are working with ICF GHK to conduct an evaluation of the Renewable Heat Premium Payment scheme, on behalf of the Department for Energy and Climate Change (DECC).

You recently completed an online survey about the Renewable Heat Premium Payment scheme (RHPP2), and kindly agreed to take part in follow-up research. We are in the process of speaking to up to 50 households across the country to follow-up their previous survey response on the Renewable Heating Technology (RHT) they installed as part of the RHPP2 Scheme.

Our records show that you installed **[RHT TYPE: air source heat pump/ Biomass boiler/ Ground or water source heat pump/ Solar thermal panels]** with the help of the RHPP2 scheme. **ASK:** Is this correct?

We would like to explore in a bit more detail your experience of the process and the technology you have installed. This information is important for DECC to really understand how customers are using these technologies.

The interview is totally confidential – we will not identify any individuals or disclose the personal details of those who take part. We would like to audio-record the interview for the purposes of accurately capturing all of the information you share with us, but all recordings and transcripts will be stored securely, and will only be accessible to staff from BMG and ICF GHK who are working on this piece of research.

BMG complies with the Market Research Society's Code of Conduct and the Data Protection Act, and no one will try and sell you anything as a result of the call.

The interview should last around 20 minutes and may be shorter depending on your situation. Would it be OK to talk to you about this now?

IF YES, CONTINUE.

IF NO, RECORD CALL OUTCOME.

Provide opportunity for respondent to ask any questions.

Seek permission to audio-record. Turn audio-recorder on. Once switched on, confirm that the audio-recorder is on for the benefit of the tape.

1.1.2. Awareness of RHPP2

I'd like to ask you a few questions about your decision to install RHT.

- **Were you thinking about installing [name(s) of technology] before you heard of the RHPP2 scheme?**

Probe to explore the following:

- IF YES, how far had you reached in the decision? (Selected preferred RHT, estimated costs and savings, identified potential installers).
- IF NOT, what were the reasons for not installing before RHPP2 (e.g. costs, impacts on property, lack of suitable installer)?
- **When you decided to install [name(s) of technology], what part did RHPP2 premium/ voucher payment play in this decision?**

Prompt using the following:

- Was it the main reason? If so, was it the value of the voucher, information provided, having confidence in a government backed scheme?
- Did it bring forward a decision planned for the future? Why?
- Did it encourage you to invest in a system with a higher specification (e.g. greater output, lower running costs)?

1.1.3. Motivation for installing [name(s) of technology]

We'd like to find out more about your reasons for installing the [name(s) of technology].

- **What was your main reason for choosing to install the [name(s) of technology]?** *Probe to explore why this was the main reason.*
- **[If necessary, ask] Were there any other reasons? Use the list below as prompts if necessary.** Probe, using the following as necessary, to explore the reasons, and how they expected the technology to address them:
 - Issues with previous system – what issues?
 - Concerns about environment
 - Concerns about fuel bills – probe on why they thought a renewable heating system would reduce fuel bills - own research/ calculations, installer quotes, etc.
 - Upgrading/refurbishing home provided opportunity for installation
 - Wanting to be self-sufficient/generate own energy
 - Interest in technology
 - Complements other RHT installed
 - Improved levels of household warmth – probe on why they thought a RHT would improve levels of warmth
 - Anticipation of RHI as source of income

- **Did you consider installing a replacement non-RHT system (e.g. an oil-fired boiler)?**

Probe to explore:

- If no, why not?
- If yes, why did you prefer a RHT system?
- **Why did you choose the [name of technology/technologies] rather than another type of renewable heat technology?**

Prompt using the following:

- Only suitable technology
- Property reasons
- Cost considerations
- Expected cost savings
- Recommendations (from whom)
- Any other reasons?
- **[For those who have multiple RHTs] What were your reasons for deciding to have both [names of technologies].** *Probe using the following if necessary:*
 - Was it a worthwhile investment?
 - Having both should save you money on the biomass boiler – is that the case?
 - How do the technologies work together?

1.1.4. Experience of selecting an installer and role of installer

I'm now going to ask you a few questions about your experience of selecting an installer, and the process of installation.

- **How did you identify an installer?**

Prompt using the following:

- Was it easy or difficult – why?
- What sources of information did you access? What was most useful? Why?
- Did you seek a range of installers – why, why not?
- **Why did you choose the installer and quote that you did?**

Probe for the main reason, using the following list as prompts where necessary:

- Locality
- Reputation
- Availability
- Price
- Quality of the information they provided
- Approach/manner

- Any other reason?
- **How happy were you with the installation? Why?**
Probe on the following:
 - Timing
 - Mess/disruption
 - Conduct of installer staff
 - Information / guidance provided
- **Did you carry out any other work on your property at the same time as installing your renewable heating system?** *Prompt to explore other types of work, e.g. new radiators, hot water tank, other energy efficiency measures (CW/LI) or general home improvement (new bathroom, extension, garden landscaping, etc.)*

1.1.5. Performance of the technology after installation

- **You've said in your latest questionnaire that you are [very/ fairly – satisfied/ dissatisfied with the performance of your technology – interviewer to remind respondent of response. We'd like to talk a little about this. Please can you tell us why you were...What are the reasons for your level of satisfaction (probe both positives and negatives)?**

Prompt using the following:

- Is the technology performing as expected/ better/ worse? Why?
- What is good about the performance?
- What are the issues or problems with the performance? (if advice on how to operate the RHT was needed, why?)
- Any issues with the new system overall
- **Has your satisfaction with the system changed [improved, stayed the same or got worse] over time, as you've used it? Why is this?**
- **Have you had any faults with the [name(s) of technology]?**

If yes, probe the following:

- Did you make a complaint about it?
- Have the faults and (if any) complaints been resolved, and how?
- To what extent does this affect your satisfaction?

1.1.6. Influence of the new system on household heating and hot water use

- **Have you changed the way you heat your home as a result of the new system?**

Prompt for the following if necessary:

- What has changed from the previous system? – different (higher or lower) thermostat setting / different (individual) rooms heated / heating on for longer hours)?

- Would you say the house is warmer than before / that you wear less warm clothes in the house – if so, why? – explore the following reasons: lower cost, greater flexibility / ease of system use? (Probe to check that this isn't because of a change in weather/season).
- How easy/ difficult have you found making these changes?
- **Did you use any additional heating alongside the old system?**
Prompt using the following if necessary:
 - What type of additional heating? - *Electric heaters, gas/LPG fire, open fire, wood burning stove, other*
 - When, why?
 - Do you use additional systems now?
 - If yes, is this to a greater/same/lesser extent?
 - Why have you changed your use of additional heating (e.g. new system avoids the need for these measures, or means additional heating is needed)?
- **Have you changed the way you use hot water as a result of [name of technology/ies]?**
If yes, prompt to explore:
 - *What has changed from the previous system? - higher temperature / increased availability / higher volumes available*
 - Would you say you use more hot water than before? – why? - *lower cost, greater flexibility / ease of system use*
 - What was the old system – do you still need to use this as a reserve?
 - [*If Solar Thermal*] In the questionnaire you said you have changed the times when you use hot water...probe the impact of this behaviour change. Probe – How easy/ difficult has it been to adapt to using hot water in this way?
 - Do you use your hot water at different times of the day – e.g. only shower in the evenings?

1.1.7. Impact on fuel bills

- **Have your home heating fuel bills increased or decreased since you had the new system installed?**
If yes, probe using the following:
 - Have all bills increased/ decreased? (e.g. if a boiler has been replaced by a heat pump, oil cost may have reduced, but electricity cost may have increased).
 - By how much – month/year?
 - Is this what you expected? If not, how does it differ?

1.1.8. Awareness of RHI

- **Have you heard of the Renewable Heat Incentive (RHI)?** (*Note: if interviewee has already made it clear that s/he is aware of RHI, can assume they are aware.*) **[If yes]** Was the RHI a factor in your decision to install your [name of technology/ies]?
- Are you ready to apply for RHI, now that it has been launched? *Prompt with the following if necessary:*
 - Planning to find out more / get more information
 - Any concerns about how to find out more?

- **Have you had a Green Deal Assessment?**
[If yes]
 - To what extent did the RHPP or the RHI influence you to have an assessment?
 - Do you think you would have taken up a Green Deal assessment anyway, if you hadn't been involved in the RHPP2? If yes probe:
 - What are the reasons for this? [*Probe if necessary with the following - Is it confidence in government? In the Installer? Knowledge of energy efficiency?*]
 - If no, do you intend to get a GD assessment

1.1.9. Close

- Do you have anything to add?
- Do you have any questions for me about the research study?

Thank for time and close.

2. Private households applied but not redeemed vouchers

2.1. Private household applied not redeemed e-Questionnaire

Dear [Insert Name],

An evaluation of the Renewable Heat Premium Payment (RHPP) Scheme: Phase 2

We are contacting you to ask you to take part in an important piece of research. We would be very grateful if you could complete this questionnaire about the **Renewable Heat Premium Payment scheme Phase 2 (RHPP2)** which you applied to sometime between 1 April 2012 and 31 March 2013. We understand that your application to the scheme was successful and you were issued with an RHPP2 voucher; however, you appear not to have redeemed the voucher. You may have participated in the scheme outside of these dates for example, after March 2013. If so, we would still like you to complete the survey.

DECC has asked us to explore the effectiveness of the scheme and to find out why some people decided not to use their RHPP2 voucher to install a renewable heat technology. Your experiences of applying to the scheme, and deciding not to redeem your voucher, are vitally important to help us better understand peoples' experiences of considering renewable heating. This information will help the Department of Energy and Climate Change (DECC) to design future policies to support renewable energy in homes.

This questionnaire has been produced by ICF GHK, an independent research company. The information you provide is being collected for research purposes only. We will not identify you or your details in any of our reports. Your answers will be combined with all other responses and we will report all the answers as a group so that individuals will not be identified.

The questionnaire should take no more than 10 minutes to complete. Once again, your views are very important to us. If you click on the link below you can complete the survey online on any device inserting the code [INSERT ID CODE] when prompted.

<http://www.ghkint.com/surveys/RHTsurvey> The survey will close on Friday 7 February]

Thank you for your time and cooperation with this important research.

Kind regards,

2.1.1. Introduction

This questionnaire is about the Renewable Heat Premium Payment scheme Phase 2 (RHPP2). The questionnaire is part of the evaluation of RHPP2 being undertaken by ICF GHK on behalf of the Department of Energy and Climate Change (DECC).

You have been invited to complete it because you applied to RHPP2 sometime between 1 April 2012 and 31 March 2013. We understand that your application to the scheme was successful and you were issued with an RHPP2 voucher; however, you decided not to redeem the voucher by the end of March 2013.

Your experiences of applying to the scheme, and deciding not to redeem your voucher at the time, are vitally important.

The information you provide is being collected for research purposes only. Your answers will be combined with all other responses and we will report all the answers as a group so that individuals will not be identified.

The questionnaire should take no more than 10 minutes to complete.

Thank you for your time and cooperation with this important research.

2.1.2. Questions

1. Please insert your unique ID number (this is in the email sent to you).

2. The energy Saving Trust (EST) records show that you made a successful application under the second phase of the Renewable Heat Premium Payment (RHPP) scheme. Can you confirm whether you received the email voucher from EST

- I received the voucher but didn't redeem it [*Please go to Q3*]
- I received a voucher but redeemed it after March 31st 2013 [*Please go to Q 7, 8 and 8b, then straight to Q18 and Q21*]
- I received vouchers for more than one renewable heating technology but I didn't redeem one of them (before the end of March 3013) [*Please go to Q3*]
- I didn't receive the voucher [*Please read statement A at end of survey and then go to Q21*]
- Don't know [*Please read statement A at end of survey and then go to Q20 and Q21*]

3. How did you first become aware of the *Renewable Heat Premium Payment* scheme Phase 2 (referred to from now on as RHPP2)? (Please select all that apply)

- Tradesperson (e.g. plumber, gas fitter)
- Recommended by installer
- Recommended by a friend/ family member
- I called the Energy Saving Advice Service (England) Home Energy Scotland (Scotland) and they told me about it
- Research on the internet (search engines, social networks, government websites)
- Energy Saving Advice Service (England) Home Energy Scotland (Scotland) website
- Electricity or gas supplier
- Leaflet
- Advert in newspaper local/national
- Advert on internet

- From my Local Authority/Council Citizens Advice Bureau
 - DIY/Supermarket/Department store
 - DECC (Department of Energy and Climate Change)
 - From a charity (e.g. Age UK, Shelter)
 - Television programme
 - Don't know
 - Other (please specify)
4. Do you know roughly when you became aware of the RHPP scheme?
- Yes [Please go to Q5]
 - No [Please go to Q6]
5. Please could you indicate when you became aware of the RHPP scheme?
6. Thinking back to when you actually applied to the RHPP2 scheme, why did you decide to install a renewable heating system? (Please select all that apply)
- As a more reliable energy supply
 - Able to generate my own energy or hot water
 - Be more self sufficient
 - Reduce my dependence on fossil fuels
 - It helps the environment
 - Reduce my carbon emissions
 - It is more efficient
 - In anticipation of the Renewable Heat Incentive
 - Compliments another renewable technology installed in the property
 - Building a new home
 - Upgrading/refurbishing home
 - It is a council or planning consent requirement
 - Save money
 - Rising prices of fossil fuels (e.g. gas and oil)
 - Could get funding / grant
 - Recommended by a friend/ family member
 - Recommended by a professional (e.g. plumber, architect, engineer)
 - Needed to replace heating system
 - Provide a more constant temperature
 - Easier to use/control
 - Easier access to fuel

- I like the technology
- Don't know
- Other (Please specify)

[Where more than one answer is selected above, 6b is displayed]

6b. Which of these was the main/ most important reason for you applying to the RHPP2 Scheme?

Annex 1 [All the answers selected from the above list are presented – respondents can then indicate which is the most important]

Annex 2 [If the answer to Q2 was "I received a voucher but redeemed it after March 31st 2013" insert this statement ahead of Q7]

The records of the RHPP administrators, the Energy Saving Trust (EST) show that you received a voucher that expired on 31 March 2013. This is why you have received this questionnaire. We understand that you have subsequently reapplied to the scheme and received another voucher. We would now like to ask you specifically about the voucher that you did not redeem before it expired on 31 March 2013.

7. Thinking back to when you applied to the RHPP2 scheme, what renewable heating technology were you considering installing? (Please select all that apply if applications were made for more than one type of technology).

If you were considering installation of more than one type of renewable heating technology, you will be asked the following set of questions for each technology.

- Biomass boiler
- Solar Thermal
- Air Source Heat Pump
- Ground or Water Source Heat Pump

Annex 3 [Q7a is only asked to those that answer Q2: with the option: I received vouchers for more than one renewable heating technology but I didn't redeem one of them (before the end of March 3013)]

7a. Which renewable heating technology did you NOT redeem the voucher for? (Please only select one)

- Biomass boiler
- Solar Thermal
- Air Source Heat Pump
- Ground or Water Source Heat Pump

Annex 4 [If the answer to Question 7 or 7a indicated that an individual made RHPP2 applications for more than one type of technology, then respondents will be asked to respond to question 8 and 8b for each technology in turn.]

Please answer question 8 and 8b for each technology that you were considering installing from question 7 or 7a.

[In paper version repeat Q8 and 8b four times, one of each technology, and add in name of technology]

8. Please tell us why you decided not to redeem the RHPP2 voucher for the *[insert technology type based on response to Q7]* system? (Please select all that apply)

Please take time to look through these options. We know it is a long list but it is important that we fully understand your views. You can add anything not covered at the end.

Technical issues

- I discovered/ was informed by the installer that the renewable heating technology was not suitable for my property
- I changed the renewable heating technology I was planning to install to another renewable heating technology (e.g. Ground or water source to air source heat pump) and did not re-apply to the RHPP2 scheme *[For the for those that answer Q2 with "I received a voucher but redeemed it after March 31st 2013" remove the highlighted text]*
- I changed the renewable heating technology I was planning to install to one that is not eligible under the RHPP2 scheme *[For the for those that answer Q2 with "I received a voucher but redeemed it after March 31st 2013" remove the highlighted text]*
- I was worried the technology would be difficult to use
- I was concerned about the performance of the renewable heating technology
- I was worried the technology would not fit with my lifestyle requirements
- I was unsure about the benefits of the new technology
- I am waiting for the technology to improve
- I am waiting for the technology to become more widely available
- I applied for a voucher before I knew much about the renewable heating technology and decided it was not right for me

Financial issues

- I discovered that the final costs were higher than I had anticipated
- I did not have the savings/finance needed to carry out the installation
- The quotes I got varied a lot and I could not decide which installer to pick
- I did not have confidence in the estimates provided by installers
- I had reservations about the launch of the domestic Renewable Heat Incentive (RHI) so I decided to wait to hear about the launch of the domestic RHI
- I have concerns about the cost and/ or availability of fuel for my renewable heating technology (e.g. price and supply of pellets for biomass boilers)
- I found another renewable heating technology that was cheaper to purchase and install
- I found a better deal for the same technology through a non-MCS certified installer

- I found that another technology not eligible for the RHPP2 could offer me a better return on investment
- I was more attracted to renewable electricity and the feed-in-tariff

Issues with installer

- The renewable heating technology could not be installed quickly enough
- I would be without heating and or hot water for too long
- The installer was unable to offer a complete end-to end service/ one -stop-shop
- I did not want to arrange for other trades people (e.g. electrician, plumber etc) to assist with the installation
- The installer ceased trading
- The installer ceased trading and I could not find another accredited installer in my area
- I was not able to get a warranty for the renewable heating technology
- The installer did not offer a maintenance service
- The installation was not completed before the end of the scheme because it was not started on time
- My installation was not completed before the end of the scheme because my installer encountered problems
- Something went wrong when the installer was on site so the installation was aborted

Other reasons

- I was planning to install more than one renewable heat technology. I encountered an issue with one technology (Please specify in the box at the bottom of this question) and I decided not to proceed with the other installation(s) either.
- I could not obtain the necessary planning approvals
- I decided to fix my current heating system and not install a renewable heating technology
- I missed the deadline and the voucher expired
- The insulation of the property needs to be improved and I am having that work done first.
- I did not want to carry out loft insulation/ cavity wall insulation
- I did not want the disruption associated with installation
- I did not have time to arrange installation
- Friends/ family advised against installation of a renewable heating technology
- I decided to move house
- I have delayed moving into my new home

- I was going to renovate/ redecorate my home/ garden but am no longer doing this
- Other: please state:

Where you were planning to install more than one technology but encountered an issue please specify which technology you had an issue with:

[Where more than one answer is selected above, 8b is displayed]

8B. Which of these was the most important reason?

Annex 5 [All the answers selected from the above list are presented – respondents can then indicate which is the most important]

Annex 6

Annex 7 [As noted above, if the answer to Question 4 indicated that RHPP2 applications were made for more than one type of technology, then question 8 and 8b need to be asked for each technology in turn],

9. Although you did not redeem your RHPP2 voucher, did you go ahead and install a renewable heating technology?

- Yes [Please go to Q10]
- No [Please go to Q19]
- Don't know [Please go to Q21]

10. Which renewable heating technology have you installed? (Please select all that apply).
Please only answer if you received the voucher but didn't redeem it or received a voucher but redeemed it after March 31st 2013

- Biomass boiler
- Solar Thermal
- Air Source Heat Pump
- Ground or Water Source Heat Pump
- Other (please specify):

10b. Apart from the renewable heat technology that you installed for which you have redeemed your RHPP voucher, please indicate if you have installed any other renewable heat technologies on your property? (Please select all that apply).

Please only answer if you received vouchers for more than one renewable heating technology but didn't redeem one of them (before the end of March 3013)

- Biomass boiler
- Solar Thermal
- Air Source Heat Pump

- Ground or Water Source Heat Pump
- No, I have not installed any other renewable heat technologies *[go to Q18 and then Q21]*
- Other (please specify):

If you have installed more than one type of renewable heating technology, you will be asked the following set of questions (11-17b) for each technology.

Annex 8 [In paper version insert the sequence of questions 11-17b for each technology in turn]

11. Is the *[insert name of renewable heat technology (response to Q10)]* you have installed eligible under the RHPP2 scheme? (For example, is the product and installer certified under the Microgeneration Certification Scheme (MCS) or Solar Keymark (or equivalent));

- Yes [Please go to Q12]
- No [Please go to Q14 and do not answer]
- Don't know [Please go to Q12]

12. Having installed a *[insert name of renewable heat technology (response to Q10)]* renewable heat technology [and insert "that you think is eligible under the RHPP2 Scheme" if Yes to Q11], have you re-applied to the RHPP2 Scheme (i.e. after 31 March 2013 when the scheme was extended)?

- Yes [Please go to Q15]
- No [Please go to Q13 and do not answer Q14]
- Don't know [Please go to Q15]

13. Why have you chosen not to reapply to the RHPP2 Scheme for the *[insert name of renewable heat technology (response to Q10)]* renewable heat technology you have installed?

- I plan to do so before the RHPP2 Scheme closes at end of March 2014
- I did not realise that I could apply to the scheme more than once/ on more than one occasion
- I intended to but have never got round to it
- I found it too time consuming and decided not to
- I am waiting for the Renewable Heat Incentive to open for applications
- Other, please specify

14. Why did you choose to install a *[insert name of renewable heat technology (response to Q10)]* renewable heat technology that did not qualify for a grant under the RHPP2 scheme?

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- It was cheaper to buy than the qualifying technology
- It was cheaper to install than the qualifying technology
- I was informed it would be cheaper to run than the qualifying technology
- It was recommended by a friend/family member/neighbour/colleague
- The fuel is cheaper than for the qualifying technology
- I was not interested in receiving the RHPP2 grant
- Other please specify

15. How much did it cost you to install your [*insert name of renewable heat technology (response to Q10)*] renewable heating system in your home? Please include the total cost of the technology and the cost of having it installed, including VAT but excluding any fuel purchased.

- Less than £2,000
- £2,000 – £3,999
- £4,000 – £5,999
- £6,000 – £7,999
- £8,000 – £9,999
- £10,000 – £11,999
- £12,000 – £13,999
- £14,000 – £15,999
- £16,000 – £17,999
- £18,000 – £19,999
- £20,000 – £29,999
- £30,000 – £39,999
- £40,000 or more
- Don't know
- Prefer not to say

16. How did you finance the installation of your [*insert name of renewable heat technology (response to Q10)*] renewable heating system? (Please select all that apply)

- Savings
- Loan
- Mortgage
- Pension lump sum
- Prefer not to say
- Other (please state)

17. Have you got a warranty for your *[insert name of renewable heat technology (response to Q10)]* renewable heating system?

- Yes – it was supplied free [Please answer question 17b]
- Yes – I had to pay for it [Please answer question 17b]
- No [Please go to Q18]
- Don't know [Please go to Q18]

[Only those that respond Yes to Q17 should answer Q17b]

17b What is your understanding of what the warranty covers? (Please select all that apply)

- Standard manufacturer's warranty
- Extended warranty
- Installer warranty
- 1 year parts/ maintenance
- 2 years parts/ maintenance
- 3 years parts/ maintenance
- 4 plus years parts/ maintenance
- Other, please specify

- Don't know

Annex 9 [As noted above, If the answer to Question 7 indicated that RHPP2 applications were made for more than one type of technology, then the sequence of questions 11-17b need to be repeated for each technology in turn],

[Only those that answered "Yes" to Question 9 (installed RHT) AND "Yes or don't know" to Q11 (is the technology RHPP eligible), should be asked Question 18. Also, those that selected the following responses to Q2:

"I received a voucher but redeemed it after March 31st 2013"

"I received vouchers for more than one renewable heating technology but I didn't redeem one of them (before the end of March 2013)"

18. The Government has announced the Domestic Renewable Heat Incentive (RHI) will open for applications in spring 2014. The Government will replace the interim RHPP scheme with the RHI, a tariff-based system where home owners are paid a guaranteed fixed price for every unit of renewable heat they generate over a seven year period. Do you intend to apply to RHI?

- Yes
- No
- Don't know

- If no or don't know, please tell us why

[Only those that answered "No" to Question 9 (did not install RHT), should be asked Question 19 and 20]

19. Why have you decided not to install a renewable heating technology?

- I intend to install a renewable heating system in the next 12 months
- I intend to install a renewable heating system sometime in the future
- I do not have the space required outside for the renewable heating technology
- I do not have the space required inside for the renewable heating technology
- Renewable heating systems are expensive to install
- Renewable heating systems are expensive to run
- Renewable heating systems will not heat my home as well as the heating system I have now
- Renewable heating systems are less reliable than alternative heating systems
- Renewable heating systems are difficult to use
- Installing a renewable heating system will require me to change the times of day when I use hot water
- I need to improve the insulation levels in my property so will do this instead of installing renewable heat technology
- I am no longer making the wider property renovations of which the installation was a part
- I am not happy with the effect renewable heating systems will have on the appearance of my property
- Other (please specify)

20. The Government has announced the Domestic Renewable Heat Incentive (RHI) will open for applications in spring 2014. The Government will replace the interim RHPP2 scheme with the RHI, a tariff-based system where home owners are paid a guaranteed fixed price for every unit of renewable heat they generate over a seven year period.

Given this, would you consider installing a renewable heating technology in the future?

- Yes
- No
- Don't know.
- If no, or don't know, please tell us why...

[Question 21 to be asked to all respondents]

21. As part of our research into RHPP2 (and other schemes to encourage renewable heat) we may wish to contact people in the future to take part in further research. Would you be willing to be contacted?

- Yes
- No

If yes, please provide us with your contact details:

Telephone number:

Thank you for your assistance in completing this questionnaire. All responses will be aggregated and will be anonymous

[For those that answered "I didn't receive the voucher" to Q2, Statement A is displayed]

Statement A

EST records show that you made a successful application under the second phase of the RHPP scheme. Your voucher will have been sent by email to the address we've sent this survey to. Two reminders will also have been sent to the same email address when the voucher was about to expire. It may be that because of personal settings in your emails, some of these emails were missed, blocked by filters or automatically deleted.

You may still be eligible to apply for a voucher under the extension to the scheme, however some of the eligibility criteria have changed including the need to undertake a Green Deal Assessment before claiming your voucher. The extension is open until end March 2014 and the voucher values have increased (in the extension, compared with the levels in phase 2 of the RHPP). Please see the details on eligibility criteria and voucher values on the EST website here <http://www.energysavingtrust.org.uk/Generating-energy/Getting-money-back/Renewable-Heat-Premium-Payment-Phase-2>

2.2. Topic Guide Questions: 'Applied Not Redeemed' Telephone Interviews with Applicant

2.2.1. Introduction

Good morning/ afternoon/ evening, please can I speak to **[NAMED CONTACT]**?

My name is **[RESEARCHER NAME]** and I am calling from BMG Research, who are working with ICF GHK to conduct an evaluation of the Renewable Heat Premium Payment scheme, on behalf of the Department for Energy and Climate Change (DECC).

You recently completed an online survey about the Renewable Heat Premium Payment scheme (RHPP2), and kindly agreed to take part in follow-up research. We are in the

process of speaking to up to 50 households across the country to follow-up their previous survey response on their choice of Renewable Heat Technology (RHT) and their use of the RHPP2 programme.

We would like to explore in a bit more detail your experience of the process.

The interview is totally confidential – we will not identify any individuals or disclose the personal details of those who take part. We would like to audio-record the interview for the purposes of accurately capturing all of the information you share with us, but all recordings and transcripts will be stored securely, and will only be accessible to staff from BMG and ICF GHK who are working on this piece of research.

BMG complies with the Market Research Society's Code of Conduct and the Data Protection Act, and no one will try and sell you anything as a result of the call.

The interview should last around 15 minutes and may be shorter depending on your situation. Would it be OK to talk to you about this now?

IF YES, CONTINUE.

IF NO, RECORD CALL OUTCOME.

Provide opportunity for respondent to ask any questions.

Seek permission to audio-record. Turn audio-recorder on. Once switched on, confirm that the audio-recorder is on for the benefit of the tape.

2.2.2. Awareness of RHPP2 (all Groups)

- **I'd like you to think back to when you applied to the RHPP2 scheme.**
 - Why did you apply to RHPP2?
 - *Prompt using the following:*
 - Planning to install RHT already and RHPP2 offered a discount?
 - Had been thinking about RHT and RHPP2 prompted decision to pursue this?
 - Thinking about RHT/undecided and wanted the voucher in case went ahead?
 - Was planning on applying to RHI in the future and RHPP2 provided interim payment?
 - A larger number of installers offering the technologies?
 - Better range of choice of technologies?
 - Any other reasons?

2.2.3. Interest in RHT (all Groups)

- What was the main reason for wanting to install your *[name of technology]*?
Prompt using the following:
 - Issues with previous system (prompt for types of issues experienced)
 - Concerns about environment (prompt for types of concerns)
 - Concerns about fuel bills (prompt for types of concerns)
 - Upgrading/refurbishing home

- Wanting to be self-sufficient/generate own energy
- Interest in technology
- Compliments other RHT installed (prompt for types of other RHT installed)
- Benefits to household warmth
- Anticipation of RHI
- Any other reasons?
- **Were there any other reasons** Probe for which (using the above list as necessary).
- Why did you choose the RHT that you applied to RHPP2 for?
Prompt using the following:
 - Property reasons
 - Cost considerations
 - Expected cost savings
 - Benefits of RHT system relative to others
 - Recommendation and from whom

2.2.4. Those who didn't install (Group 1)

- **Can I just confirm that you have not redeemed your RHPP2 voucher or installed any Renewable Heat Technology since applying to the scheme?**

IF HAVE INSTALLED RHT, MOVE TO THE NEXT SECTION ('THOSE WHO INSTALLED').

- **We understand from your questionnaire that you didn't redeem your RHPP2 voucher or install a RHT because [reasons from questionnaire – full range of reasons listed below]**
- **Issues with RHT leading to failure to redeem/install – what were these issues?**

If so, probe using the following:

- Cost of RHT higher than anticipated – when did this emerge?
- RHT not suitable for property / concern over effect on property – when did this emerge?
- Concerns about performance of RHT – what/how identified?
- Problems finding an installer - what
- Waiting for RHI (probe expectation)
- Moving house – planning to install in new house?
- Planning permissions – objections by neighbours, building regs, timing
- **Planning to install at a future date – why?**

If so, probe using the following:

- Any plans at present?
- What will influence this decision?
- **Missed the deadline – why?**
If so, probe using the following:
 - Because didn't make the decision to install in time – what were the factors?
 - Because the installer couldn't install or complete the installation of the RHT in time – what caused the delays?
 - Because of an administrative delay?
- **Decided to wait for the RHI – why?**
If so, probe using the following:
 - Why did you wait for RHI before installing?
 - When do you think you will install?
- **Were there any other reasons?**
- **Has thinking about the possibility of having a RHT affected the way you think about your energy use? How?**
Probe on the following?
 - Has it made you think about it more? Less?
 - Has it changed the way energy is used?
 - Has it led to any further energy saving measures such as insulation or energy saving lightbulbs?

GO TO AWARENESS OF RHI SECTION.

2.2.5. Those who installed (Groups 2, 3, 4)

I can see you didn't redeem an RHPP voucher. However, you have told us you installed *[name of technology]*.

- **Please can you tell me why you decided to go ahead and install an RHT?**
Probe for reasons why.
- **Was RHPP2 [extension, or the RHI] a factor in your decision to install RHT?**
Prompt the following:
 - Did RHPP2 bring forward the decision to install, how?
 - Did it encourage you to invest in a system with a higher specification (e.g. greater output, lower running costs)?
- **Did you receive a warranty for your [name of technology]?**
 - If yes - Length, coverage?
 - If yes - Are you happy with the warranty? Why, why not?
- **[For Group 2 only] Why did you install technology outside of the MCS standards? Probe to explore reasons: cost, installer recommendation, unaware at the time.**

- **[If installed a technology different to that applied for a voucher for] Why did you install a different RHT than the one you applied to the RHPP2 for?**

Prompt using the following:

- Property reasons
- Cost considerations – when and why did this emerge as an issue?
- Expected cost savings
- Benefits of RHT system relative to others
- Concerns about RHT performance
- [For Group 2 only] Interest in an RHT that was not eligible under RHPP/RHI
- Recommendation and from whom?
- Different RHI tariffs (Probe: people may have chosen their RHT on the basis of its tariff, because different technologies have different (higher/lower) tariffs.)
- **We understand from your questionnaire that you didn't redeem your RHPP2 voucher because [reasons from questionnaire]:**
 - **Missed the deadline** – prompt for reasons why:
 - Because you didn't make the decision to install in time – what were the factors?
 - Because the installer couldn't install or complete the installation of the RHT in time – what caused the delays?
 - Changed technology and didn't have time to reapply
 - Because of an administrative delay – with receiving the voucher?
 - **Decided to wait for the RHI** (Note: not relevant for group 4) – *prompt for reasons why:*
 - Did you know about RHI before RHPP2?
 - Was this a key part of your decision to install RHT?
 - Why was it important?
 - Why wasn't it important?
 - What are your expectations of RHI?
 - Were there any other reasons? (e.g. installer issues, technical issues)
- We'd now like to talk a little about your satisfaction with the RHT you have installed.
- **How satisfied are you with the performance of your technology?** *Prompt to explore whether the technology is performing as expected/ better/ worse.*
- What are the reasons for your satisfaction?

Probe using the following:

- What is good about the performance?
- What are the issues or problems with the performance?
- Any issues with the new system overall?
- **Have your home heating fuel bills increased or decreased since you had the new system installed?**

Probe as applicable:

- Which bills? (electricity/ gas/ oil/ coal/ LPG/ Biomass/ other)
- By how much have they increased/ decreased? (probe for monthly/ yearly increase or decrease)
- Was this in line with expectations, or not?
- **Has your RHT affected the way you think about, and manage, your wider energy use?**

If yes, how? Probe to explore:

- Has it made you think about it more? Less?
- Has it changed the way energy is used? (i.e. use of heating/ hot water, switching off lights/ electric appliances)
- Has it led to any further energy saving measures such as insulation or energy saving light bulbs?

2.2.6. Awareness of RHI (all interviewees) (All Groups)

- **Are you aware of the Renewable Heat Incentive (RHI)?** (Note: if interviewee has already made it clear that s/he is aware of RHI, can assume they are aware.)
- *[If yes and installed]* Was the RHI a factor in your decision to install your [name of technology/ies]?
 - Are you ready to apply for RHI, now that the scheme has been launched?

Prompt with the following if necessary:

- Planning to find out more / get more information
- Any concerns about how to find out more?
- *[If yes, and not installed]* Will the RHI influence you to install a RHT
- Have you had a Green Deal Assessment? (All Groups)
- *[If yes]*
 - To what extent did the RHPP or the RHI influence you to have an assessment?
 - Do you think you would have taken up a Green Deal assessment anyway, if you hadn't been involved in the RHPP? If yes probe:
 - o What are the reasons for this? *[Probe if necessary with the following - Is it confidence in government? In the Installer? Knowledge of energy efficiency?]*
 - *[If no]* do you intent to apply to have a GD assessment

2.2.7. Close

- **Is there anything else you would like to add?**
- **Do you have any questions for me about this research study?**

Thank for time and close.

3. Registered social landlords and social tenants

3.1. Tenant Air Source Heat Pump Questionnaire

SECTION A: Before the installation of your Air Source Heat Pump

1 Were you living at this property **before and/or during** the installation of the Air Source Heat Pump?

Tick one and then proceed to the question number indicated

- Yes, I lived here **before and during** the installation of the Air Source Heat Pump **Go to → 2**
- Yes, I lived here **during but not before** the installation of the Air Source Heat Pump **Go to → 12**
- No, I moved in **after** the Air Source Heat Pump was installed **Go to → 17**
- Don't know **Go to → 2**

2 Before the installation, in what ways did your Landlord (directly or through a representative) contact you to tell you about the Air Source Heat Pump?

Tick all that apply

- Letter through the post
- Telephone call
- By email
- Personal visit to my home
- Through the caretaker
- I was not informed
- Through the tenants and residents association
- Don't know
- Through the installer of the system
- Other, please tell us how
- At a public meeting

3 Before the installation, in what ways were you given a chance to ask your Landlord (directly or through a representative) questions about the Air Source Heat Pump?

Tick all that apply

- Directly with someone at my Landlord's housing office
- At a meeting on my estate / street / local community centre
- Through a Community Liaison person
- At a meeting / presentation/ exhibition at another public location
- Through the caretaker
- I was **not** given an opportunity to ask my Landlord (directly or through a representative) questions before the installation
- By email
- Don't know
- On the phone
- Other, please tell us how
- At a meeting at my home

4 Please think about all the times your Landlord (directly or through a representative) arranged to talk to you to answer your questions about the Air Source Heat Pump **before** the installation. How many times did this happen?

Tick one

- Never
- 1 time
- 2-3 times
- 4-5 times
- 6 times or more
- Don't know

5 Overall, how satisfied are you with how your Landlord (directly or through a representative) discussed the Air Source Heat Pump with you **before** the installation?

Tick one

- | | | | | | |
|--------------------------|--------------------------|------------------------------------|--------------------------|--------------------------|--------------------------|
| Very satisfied | Fairly satisfied | Neither satisfied nor dissatisfied | Fairly dissatisfied | Very dissatisfied | Don't know |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

6 We would like to know what information you were given by your Landlord (directly or through a representative) **before** the installation of your Air Source Heat Pump. Please tell us whether they provided you with information on:

Tick one per row

	Yes, I was given enough information	Some information – but I would have liked more	No information on this – I would have liked some	No information – but it was not of interest to me	Don't know
How an Air Source Heat Pump works to provide heat and/or hot water to my home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
What the Air Source Heat Pump would look like (appearance)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Where the Air Source Heat Pump equipment would be located (location)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How the controls on the Air Source Heat Pump would work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How my overall energy bills would change after installing the Air Source Heat Pump	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Overall, how satisfied were you with the information provided by your Landlord (directly or through a representative) about the Air Source Heat Pump before the installation?
Tick one

Very satisfied	Fairly satisfied	Neither satisfied nor dissatisfied	Fairly dissatisfied	Very dissatisfied	Don't know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8 Did you have a choice about the installation of the Air Source Heat Pump?
Tick one

Yes – I could decide if I wanted it installed

No – I had no choice about the installation

Don't know

9 Did you want the Air Source Heat Pump installed in your home?
Tick one and then proceed to the question number indicated

Yes → Go to **11** No → Go to **10**

Not at first, but then I changed my mind → Go to **10**

10 Please tell us why you did not want the Air Source Heat Pump:
Tick all that apply

I liked my old heating system

I did not want any change in my home

I felt like I didn't know enough about the Air Source Heat Pump

I wanted a different heating system (not an Air Source Heat Pump)

I did not like the appearance/ look of the Air Source Heat Pump

I was worried about the mess from the installation

I was worried about the disruption from the installation

I was worried about learning how to set / control the Air Source Heat Pump

I was worried about whether the Air Source Heat Pump would heat my home to the right temperature for me

I was worried about the potential cost of electricity to run an Air Source Heat Pump

I was worried about the potential noise generated by the Air Source Heat Pump

Don't know

Other, please describe

11 Why did you agree to having the Air Source Heat Pump installed in your home?
Please tick all that apply in column A. In column B tick your main reason only.

	A	B
	Tick all that apply	Tick one main reason
Not Applicable – I did not want the Air Source Heat Pump	<input type="checkbox"/>	<input type="checkbox"/>
I thought it would save me money	<input type="checkbox"/>	<input type="checkbox"/>
My heating system needed to be replaced	<input type="checkbox"/>	<input type="checkbox"/>
My Landlord was planning to upgrade / refurbish the heating system in my home anyway	<input type="checkbox"/>	<input type="checkbox"/>
My Landlord was planning to refurbish / upgrade other things in my home (other than heating) anyway	<input type="checkbox"/>	<input type="checkbox"/>
Recommended by my Landlord	<input type="checkbox"/>	<input type="checkbox"/>
Recommended by neighbours / friends / family	<input type="checkbox"/>	<input type="checkbox"/>
Recommended by a professional (e.g. plumber, engineer)	<input type="checkbox"/>	<input type="checkbox"/>
I thought it would provide a more constant temperature	<input type="checkbox"/>	<input type="checkbox"/>
I thought it would be easier to use/control	<input type="checkbox"/>	<input type="checkbox"/>
No need to arrange purchase / delivery of fuels (other than electricity)	<input type="checkbox"/>	<input type="checkbox"/>
I thought it would be a more reliable energy supply	<input type="checkbox"/>	<input type="checkbox"/>
To be able to generate my own energy	<input type="checkbox"/>	<input type="checkbox"/>
To be more self sufficient	<input type="checkbox"/>	<input type="checkbox"/>
I thought it would help the environment	<input type="checkbox"/>	<input type="checkbox"/>
I thought I could reduce my carbon emissions	<input type="checkbox"/>	<input type="checkbox"/>
I thought it would be more efficient	<input type="checkbox"/>	<input type="checkbox"/>
Complimented another renewable technology installed in my home	<input type="checkbox"/>	<input type="checkbox"/>
Rising prices of fossil fuels (gas, oil etc.)	<input type="checkbox"/>	<input type="checkbox"/>
I liked the technology	<input type="checkbox"/>	<input type="checkbox"/>
Don't know	<input type="checkbox"/>	<input type="checkbox"/>

SECTION B: The Installation Process

12 We would like to know how prepared you felt about the installation process of your Air Source Heat Pump at your home. Please tell us to what extent you **agree** or **disagree** with each of the statements below:
Tick one per row

Before the installation happened...	Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know
I knew what works the installers would have to do in my home to replace the previous system (if relevant) and install the new one (such as replacing the radiators or connecting pipes through external walls)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I had enough time to prepare for the works at my home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I knew when the installers would come to my home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I knew how many days I would be without heating and/ or hot water (if applicable)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I knew when the Air Source Heat Pump would start working	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13 Which of the following did your Landlord do at your home around the same time as installing the Air Source Heat Pump?
Tick all that apply

<input type="checkbox"/> Redecorate part or all of your home	<input type="checkbox"/> Install another renewable technology (eg. Solar Photovoltaic Panels)
<input type="checkbox"/> Make improvements in your garden or other outside space	<input type="checkbox"/> Install a smart meter
<input type="checkbox"/> Install radiators	<input type="checkbox"/> None of these
<input type="checkbox"/> Install underfloor heating	<input type="checkbox"/> Don't know
<input type="checkbox"/> Install energy efficiency measures (e.g. insulation, draught proofing, double glazing, heating controls)	<input type="checkbox"/> Other, please state what
<input type="checkbox"/> Install a new shower or electric shower	<input type="text"/>

14 Did you or someone else in your household have to do any of the following as a result of the installation?
Tick all that apply

- Take time off work to be at home at the time of the installation
- Arrange for someone else to be at home at the time of the installation
- Move out for the duration of the installation
- Go to a family / friends' house for showers / baths
- Spend your own money on redecoration (for example, on hiring a decorator or on buying paint or wallpaper for where radiators were moved)
- Spend your own time on redecoration (for example, on painting)
- Don't know

15 Overall, how easy did you find the process of the installation of your Air Source Heat Pump in your home?
Tick one

Very easy	Quite easy	Quite difficult	Very difficult	Don't know
<input type="radio"/>				

16 When (Month and Year) did your Air Source Heat Pump start working at your home?

MM YYYY Don't know

SECTION C: After the Installation

17 To what extent were you satisfied with the explanation given by your Landlord (directly or by a representative) or the installer on how to use your Air Source Heat Pump?
Tick one

Very satisfied	Fairly satisfied	Neither satisfied nor dissatisfied	Fairly dissatisfied	Very dissatisfied	Don't know	Not applicable (I did not receive an explanation)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

18 Compared with your previous system, how **easy** or **difficult** do you find it to operate your Air Source Heat Pump?

Tick one

Much easier	Easier	About the same	More difficult	Don't know	Not applicable/ new resident
<input type="radio"/>					

19 Overall, how satisfied are you with each of the following aspects of your Air Source Heat Pump

Tick one per row

	Very satisfied	Fairly satisfied	Fairly unsatisfied	Very unsatisfied	Don't know / not applicable
Noise level	<input type="radio"/>				
How it looks	<input type="radio"/>				
How reliable it is (i.e. whether it breaks down)	<input type="radio"/>				
Understanding the system controls	<input type="radio"/>				
Ease of adjusting the controls	<input type="radio"/>				

20 Please tell us whether your Air Source Heat Pump provides:

Tick one and then proceed to the question number indicated

- Heating only →Go to **21**
- Heating and Hot Water →Go to **21**
- Hot water only →Go to **31**
- Don't know →Go to **21**

SECTION D: Room Heating

21 What was the **main** heating system in your home **before** the Air Source Heat Pump was installed?

Tick one

- | | |
|---|--|
| <input type="radio"/> Central heating – Gas (mains) | <input type="radio"/> Fixed room heaters – LPG/ Other bottled gas |
| <input type="radio"/> Central heating – Oil | <input type="radio"/> Fixed room heaters – Solid Fuel (open fire/enclosed stove) |
| <input type="radio"/> Central heating – LPG / Other bottle gas | <input type="radio"/> Portable heaters – Electric |
| <input type="radio"/> Central heating – Solid fuel | <input type="radio"/> Portable heaters – Bottled Gas |
| <input type="radio"/> Fixed room heaters – Electric (including storage or Economy 7/10) | <input type="radio"/> Communal or district heating |
| <input type="radio"/> Fixed room heaters – Gas (mains) | <input type="radio"/> Don't know / Not applicable |
| <input type="radio"/> Fixed room heaters – Oil | <input type="radio"/> Other , please describe |

22 Which of the following best describes the **temperature** achieved by your Air Source Heat Pump during:

Tick one per row

	Much too hot	Too hot	About right	Too cold	Much too cold	Have not experienced this yet	Don't know
... the coldest days	<input type="radio"/>	<input type="radio"/>					
... the coldest nights	<input type="radio"/>	<input type="radio"/>					
Overall	<input type="radio"/>	<input type="radio"/>					

23 How satisfied are you with the **time** it takes to achieve your desired level of comfort from your Air Source Heat Pump in...

Tick one per row

	Very satisfied	Fairly satisfied	Fairly unsatisfied	Very unsatisfied	Have not experienced this yet	Don't know
... winter	<input type="radio"/>	<input type="radio"/>				
...autumn/spring	<input type="radio"/>	<input type="radio"/>				
... summer	<input type="radio"/>	<input type="radio"/>				



24 On average, do you run your Air Source Heat Pump at a higher temperature on your thermostat than you used to do with your previous heating system?

Tick one

- Yes
 Not applicable / new resident
 No – it runs at the same temperature
 Don't know
 No – it runs at a lower temperature

25 If you feel **too cold**, what are the main actions you take?

Tick up to three

- Use additional heating sources
 Wait for the heating system to provide a comfortable level
 Turn up the thermostat
 Put on additional layers of clothing
 Use a timer to extend the time the heating is on
 Do nothing
 Turn the heating to be on all the time
 Don't know
 Adjust the thermostatic radiator valves to increase the temperature
 Other, please specify
 Adjust the zone control system

26 If you feel **too hot**, what are the main actions you take?

Tick up to three

- Switch off the heating system
 Remove layers of clothing
 Turn down the thermostat
 Open windows to ventilate rooms
 Use a timer to reduce the time the heating is on
 Open doors to ventilate rooms
 Adjust the thermostatic radiator valves to reduce the temperature
 Do nothing
 Adjust the zone control system to reduce heating/temperature
 Don't know
 Wait for the heating system to provide a comfortable level
 Other, please specify



27 Since you have had the Air Source Heat Pump installed, please tell us if any of the following statements apply to you:

Tick one per row

	Yes	No	Don't know
I heat more rooms in my home now than compared to when I had my previous heating system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have the heating on for more hours now than compared to when I had my previous heating system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have the heating on at a higher temperature now than compared to when I had my previous heating system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Not applicable / new resident			<input type="checkbox"/>

28 During winter (Dec – Feb) have you used any **supplementary heating systems**, in addition to your Air Source Heat Pump, to achieve the comfort you desire in your home?

Tick one and then proceed to the question number indicated

- Yes → Go to **29**
 No → Go to **31**
 Don't know → Go to **29**

29 Approximately how many hours (on average) per month did you use these supplementary heating systems during the winter (Dec-Feb)?

Tick one per row

	More than a few hours a day	A few hours a day	A few hours once or twice a week	A few hours a month or less	Not at all / Not applicable	Don't know
Plug in electric radiator	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Electric fan heating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Electric fire	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gas/LPG fire	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Open fire	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wood burning stove	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Other → Go to 30						

30 If you ticked "Other" please, tell us what supplementary system you used:

SECTION E: Your Hot Water

Please answer Questions 31, 32 and 33 if your Air Source Heat Pump provides hot water. If not →Go to **34**

31 Before the Air Source Heat Pump, what was the main heating system you used to heat your hot water?

Tick one

- Gas
- Oil
- Electric (including Economy 7/10)
- Coal
- Solid fuel
- Bottled gas / paraffin
- Gas fires
- Communal or district heating
- Don't know
- Not applicable / new resident
- Other, please describe

32 How satisfied are you with the amount of hot water available from your Air Source Heat Pump in...

Tick one per row

	Very satisfied	Fairly satisfied	Fairly unsatisfied	Very unsatisfied	Have not experienced this yet	Don't know
... winter	<input type="checkbox"/>	<input type="checkbox"/>				
...autumn/spring	<input type="checkbox"/>	<input type="checkbox"/>				
... summer	<input type="checkbox"/>	<input type="checkbox"/>				

33 How satisfied are you with the temperature of hot water available from your Air Source Heat Pump in...

Tick one per row

	Very satisfied	Fairly satisfied	Fairly unsatisfied	Very unsatisfied	Have not experienced this yet	Don't know
... winter	<input type="checkbox"/>	<input type="checkbox"/>				
...autumn/spring	<input type="checkbox"/>	<input type="checkbox"/>				
... summer	<input type="checkbox"/>	<input type="checkbox"/>				

SECTION F: About Your Energy Use

34 Do you actively monitor how you use energy in your home? (By actively monitor we mean checking how much energy you use on a regular basis)

Tick one

- Yes
- No
- Don't know

35 Since you have had the Air Source Heat Pump installed, please state to what extent you agree or disagree with the following statements:

Tick one per row

	Strongly agree	Agree	Disagree	Strongly disagree	Don't know
I consider the way I use heating more now	<input type="checkbox"/>				
I consider the way I use hot water more now	<input type="checkbox"/>				
I am more careful to switch lights and electrical appliances off now	<input type="checkbox"/>				
I open windows and doors to ventilate rooms more often now	<input type="checkbox"/>				
Not applicable / new resident					<input type="checkbox"/>

36 Thinking about your overall bills for energy (your total for electricity and other fuels), have you noticed a change since your Air Source Heat Pump has been installed?

Tick one then proceed to the question number indicated

- My total household fuel bills have increased →Go to **37**
- My total household fuel bills have decreased →Go to **37**
- No change / my total fuel bills have stayed the same → Go to **38**
- I don't know →Go to **37**
- Not applicable / new resident →Go to **38**
- Other, please specify then →Go to **37**

37 What do you think are the main reasons for the change to your overall/total energy bills?

Tick all that apply – Please answer for all fuels / energy

- Change in price of fuel
- Changed energy supplier
- Changed energy tariff
- Changes in grants/subsidies for my fuel (e.g. free/subsidised coal)
- Colder winters
- Change in my household circumstances (e.g. changes in working hours, retired, illness, new baby in the home)
- I heat more rooms than I used to
- I heat fewer rooms than I used to
- I have the thermostat set to a higher temperature than I used to
- I have the thermostat set to a lower temperature than I used to
- I use the heating for more hours than I used to
- I use the heating for fewer hours than I used to
- New windows (e.g. double glazing) installed in my home
- Changes in my home insulation
- Air Source Heat Pump installed in my home
- Thermostat or thermostatic radiators installed in my home
- Other renewable technology in my home
- Other technology changes in my home (additional or new electrical goods, e.g. fridge, lighting)
- Don't know
- Other reason, please describe

38 Overall, do you think your Air Source Heat Pump will save you money in the long run?

Tick one

- Yes No Don't know

SECTION G: Your Views About Your Air Source Heat Pump Heating System

39 Overall, how satisfied are you with your Air Source Heat Pump?

Tick one

- | | | | | |
|--------------------------|--------------------------|------------------------------------|--------------------------|--------------------------|
| Very satisfied | Fairly satisfied | Neither satisfied nor dissatisfied | Fairly dissatisfied | Very dissatisfied |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

40 Would you recommend installing an Air Source Heat Pump to anyone else?

Tick one

- Yes No Don't know

SECTION H: About Your Household

We want to know this information for research purposes only. Your answers will be kept confidential.

41 How do you pay for your electricity and other fuel bills?

Tick all that apply

- Through my rent, rates or service charge payments to my Landlord
- Pre-payment meter
- Bill – by cash, cheque or card
- Bill – by Direct debit or standing order
- Flexible payments (such as through a Payment Card)
- Don't know
- Prefer not to say
- Other, please describe

42 Do you receive financial support for your fuel bills?

Tick one

- Yes - discount on my fuel bills (e.g. Warm Home Scheme, Warm Home Discount, Social Tariff)
- Yes - Winter Fuel Payment
- Yes - I am not sure what support I get
- No
- Don't know
- Prefer not to say
- Other, please describe

43 Please select your accommodation type:
Tick all that apply

Detached Sheltered housing accommodation
 Semi-detached Part of a converted or shared house (including bed-sits)
 Terraced (including end terrace) Prefer not to say
 Purpose built block of flats/tenement Other, please describe

44 Please tell us when your home was built:
Tick one

Before 1919 1965 - 1980 Don't know
 1919 - 1944 1981 - 2000 Prefer not to say
 1945 - 1964 2001 or after

45 How many bedrooms does your home have?

Number of bedrooms:	1	2	3	4	5	6	7+	Don't know	Prefer not to say
Tick the box:	<input type="checkbox"/>								

46 How many people of each age group live in your home:

Age	Number of people	Age	Number of people	Age	Number of people
0-4	<input type="text"/>	25-34	<input type="text"/>	65-74	<input type="text"/>
5-11	<input type="text"/>	35-44	<input type="text"/>	75 or over	<input type="text"/>
11-15	<input type="text"/>	45-54	<input type="text"/>	Prefer not to say	<input type="checkbox"/>
16-24	<input type="text"/>	55-64	<input type="text"/>	Don't know	<input type="checkbox"/>

47 Are you:

Male Female Prefer not to say

48 What age group are you in?
Tick one

16 - 24 35 - 44 55 - 64 75 or over
 25 - 34 45 - 54 65 - 74 Prefer not to say

49 Which of the following categories best describes your current employment:
Tick one

Employed full time Student
 Employed part time Housewife / househusband
 Self employed Prefer not to say
 Unemployed Other, please describe

50 Which category represents the total annual income of your WHOLE household including pensions and other benefits before income tax and National Insurance contributions:
Tick one

Up to £5,199	<input type="checkbox"/>	£32,000 to £36,399	<input type="checkbox"/>
£5,200 to £10,399	<input type="checkbox"/>	£36,400 to £41,599	<input type="checkbox"/>
£10,400 to £15,599	<input type="checkbox"/>	£46,800 to £51,999	<input type="checkbox"/>
£15,600 to £20,799	<input type="checkbox"/>	£52,000 to £71,999	<input type="checkbox"/>
£20,800 to £25,999	<input type="checkbox"/>	£72,000 or over	<input type="checkbox"/>
£26,000 to £31,199	<input type="checkbox"/>	Prefer not to say	<input type="checkbox"/>

We (ICF GHK) or the Department of Energy and Climate Change (DECC) may want to contact you again by post, email or telephone for the purpose of further research, for instance to find out more about the answers you've given. If you are happy for your details to be passed onto DECC for this purpose please confirm below.

51 I am happy to be contacted for research in the future:

Yes No

Please confirm your details in the box below:

Name:	
Telephone no:	
Mobile no:	
Email:	
Address:	

It is sometimes possible to link the data we have collected with other government surveys or datasets held by the government for the purpose of statistical analysis and informing government policy. Your confidentiality will be maintained, and linked data will only be used for the purposes of statistical analysis and informing policy, by researchers authorised by the Department of Energy and Climate Change (DECC). **It will not be possible to identify any person, household or address from any results that may be published.**

52 I am happy for my responses to be passed to the Department of Energy and Climate Change (DECC) for this purpose:

Yes No

Household Meter Number

One of the datasets that may be helpful to link to is electricity consumption. To obtain data for electricity it is useful to have your MPAN number. Your MPAN is the unique identifying number for the electricity supply at your property. It is sometimes known as the "Supply Number" or "S" number. It is a 21 digit number, which should appear on your electricity bill (this is different from your customer account number) or other letter from your electricity provider (not on your meter).

Your supply number will normally be shown on your bill using a large "S" and a grid of numbers, 8 in the top row and 13 underneath. It might look like this:

S	28	9 8 7	6 5 4
	07	0123	4567 123

53 Please write this 21 digit number in the box below:
If you cannot find this number, please leave the box blank.

S			



PRIZE DRAW

ICF GHK is offering all participants free entry into a prize draw.

All questionnaires completed and returned by 30th April 2014 will be entered into a prize drawn. The prizes are:

- 1st prize - £150 in high street vouchers
- 2nd prize - £100 in high street vouchers
- 3rd prize - £50 in high street vouchers

Tick this box if you do not want to be entered into the prize draw.

If you would like to enter in the prize draw please enter your details below. We will only use these details to contact you if you win a prize and not for any other purpose.

Name:	
Telephone no:	
Address:	

Thank you for your time and assistance in completing the questionnaire.

Please put your completed questionnaire in the postage-paid envelope provided and post it to us.

If you have lost the envelope please post the questionnaire to us at:
ICF GHK, 30 St Paul's Square, Birmingham B3 1QZ

3.2. Tenant Biomass Questionnaire

SECTION A: Before the installation of your Biomass Boiler

- 1** Were you living at this property **before and/or during** the installation of the Biomass Boiler?
Tick one and then proceed to the question number indicated
- Yes, I lived here **before and during** the installation of the Biomass Boiler
Go to → **2**
- Yes, I lived here **during but not before** the installation of the Biomass Boiler
Go to → **12**
- No, I moved in **after** the Biomass Boiler was installed Go to → **17**
- Don't know Go to → **2**

- 2** Before the installation, in what ways did your Landlord (directly or through a representative) contact you to tell you about the Biomass Boiler?

Tick all that apply

- Letter through the post Telephone call
- By email Personal visit to my home
- Through the caretaker I was not informed
- Through the tenants and residents association Don't know
- Through the installer of the system Other, please tell us how
- At a public meeting

- 3** Before the installation, in what ways were you given a chance to ask your Landlord (directly or through a representative) questions about the Biomass Boiler?

Tick all that apply

- Directly with someone at my Landlord's housing office At a meeting on my estate / street / local community centre
- Through a Community Liaison person At a meeting / presentation / exhibition at another public location
- Through the caretaker I was **not** given an opportunity to ask my Landlord (directly or through a representative) questions before the installation
- By email Don't know
- On the phone Other, please tell us how
- At a meeting at my home

1

PLEASE TURN OVER THE PAGE →

- 4** Please think about all the times your Landlord (directly or through a representative) arranged to talk to you to answer your questions about the Biomass Boiler **before** the installation. How many times did this happen?

Tick one

- Never 1 time 2-3 times
- 4-5 times 6 times or more Don't know

- 5** Overall, how satisfied are you with how your Landlord (directly or through a representative) discussed the Biomass Boiler with you **before** the installation?

Tick one

- | | | | | | |
|--------------------------|--------------------------|------------------------------------|--------------------------|--------------------------|--------------------------|
| Very satisfied | Fairly satisfied | Neither satisfied nor dissatisfied | Fairly dissatisfied | Very dissatisfied | Don't know |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

- 6** We would like to know what information you were given by your Landlord (directly or through a representative) **before** the installation of your Biomass Boiler. Please tell us whether they provided you with information on:

Tick one per row

	Yes, I was given enough information	Some information – but I would have liked more	No information on this – I would have liked some	No information – but it was not of interest to me	Don't know
How a Biomass Boiler works to provide heat and/or hot water to my home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
What the Biomass Boiler would look like (appearance)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Where the Biomass Boiler equipment would be located (location)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How the controls on the Biomass Boiler would work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How my overall energy bills would change after installing the Biomass Boiler	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The cost of fuel for my Biomass Boiler	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The space required to store fuel for my Biomass Boiler system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How to load fuel in my Biomass Boiler	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cleaning of my Biomass Boiler	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2

PLEASE TURN OVER THE PAGE →

7 Overall, how satisfied were you with the information provided by your Landlord (directly or through a representative) about the Biomass Boiler **before** the installation?
Tick one

Very satisfied	Fairly satisfied	Neither satisfied nor dissatisfied	Fairly dissatisfied	Very dissatisfied	Don't know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8 Did you have a **choice** about the installation of the Biomass Boiler?
Tick one

Yes – I could decide if I wanted it installed

No – I had no choice about the installation

Don't know

9 Did you **want** the Biomass Boiler installed in your home?
Tick one and then proceed to the question number indicated

Yes →Go to **11** No →Go to **10**

Not at first, but then I changed my mind →Go to **10**

10 Please tell us why you **did not want** the Biomass Boiler:
Tick all that apply

- I liked my old heating system
- I did not want any change in my home
- I felt like I didn't know enough about the Biomass Boiler
- I wanted a different heating system (not a Biomass Boiler)
- I did not like the appearance / look of the Biomass Boiler
- I was worried about where the Biomass Boiler would be installed in my home
- I was worried about the mess from the installation
- I was worried about the disruption from the installation
- I was worried about learning how to set / control the Biomass Boiler
- I was worried about whether the Biomass Boiler would heat my home to the right temperature for me
- I was worried about the potential noise generated by the Biomass Boiler
- I was worried about the potential cost of purchasing fuel (e.g. wood pellets, logs) for my Biomass Boiler
- I was worried about how to source fuel (e.g. wood pellets, logs) for my Biomass Boiler
- I was worried about where to store fuel (e.g. wood pellets, logs) for my Biomass Boiler
- I was worried about having to load the fuel into my Biomass Boiler / fuel hopper
- Don't know
- Other, please describe

11 Why did you agree to having the Biomass Boiler installed in your home?
Please tick all that apply in column A. In column B tick your main reason only.

	A	B
	Tick all that apply	Tick one main reason
Not Applicable – I did not want the Biomass Boiler	<input type="checkbox"/>	<input type="checkbox"/>
I thought it would save me money	<input type="checkbox"/>	<input type="checkbox"/>
My heating system needed to be replaced	<input type="checkbox"/>	<input type="checkbox"/>
My Landlord was planning to upgrade / refurbish the heating system in my home anyway	<input type="checkbox"/>	<input type="checkbox"/>
My Landlord was planning to refurbish / upgrade other things in my home (other than heating) anyway	<input type="checkbox"/>	<input type="checkbox"/>
Recommended by my Landlord	<input type="checkbox"/>	<input type="checkbox"/>
Recommended by neighbours / friends / family	<input type="checkbox"/>	<input type="checkbox"/>
Recommended by a professional (e.g. plumber, engineer)	<input type="checkbox"/>	<input type="checkbox"/>
I thought it would provide a more constant temperature	<input type="checkbox"/>	<input type="checkbox"/>
I thought it would be easier to use / control	<input type="checkbox"/>	<input type="checkbox"/>
I thought it would be a more reliable energy supply	<input type="checkbox"/>	<input type="checkbox"/>
To be able to generate my own energy	<input type="checkbox"/>	<input type="checkbox"/>
To be more self sufficient	<input type="checkbox"/>	<input type="checkbox"/>
I thought it would help the environment	<input type="checkbox"/>	<input type="checkbox"/>
I thought I could reduce my carbon emissions	<input type="checkbox"/>	<input type="checkbox"/>
I thought it would be more efficient	<input type="checkbox"/>	<input type="checkbox"/>
Complemented another renewable technology installed in my home	<input type="checkbox"/>	<input type="checkbox"/>
Rising prices of fossil fuels (gas, oil etc.)	<input type="checkbox"/>	<input type="checkbox"/>
I liked the technology	<input type="checkbox"/>	<input type="checkbox"/>
Don't know	<input type="checkbox"/>	<input type="checkbox"/>

SECTION B: The Installation Process

12 We would like to know how prepared you felt about the installation process of your Biomass Boiler at your home. Please tell us to what extent you **agree** or **disagree** with each of the statements below:
Tick one per row

Before the installation happened...	Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know
I knew what works the installers would have to do in my home to replace the previous system (if relevant) and install the new one	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I had enough time to prepare for the works at my home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I knew when the installers would come to my home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I knew how many days I would be without heating and / or hot water (if applicable)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I knew when the Biomass Boiler would start working	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

13 Which of the following did your Landlord do at your home around the same time as installing the Biomass Boiler?
Tick all that apply

<input type="checkbox"/> Redecorate part or all of your home	<input type="checkbox"/> Install another renewable technology (eg. Solar Photovoltaic Panels)
<input type="checkbox"/> Make improvements in your garden or other outside space	<input type="checkbox"/> Install a smart meter
<input type="checkbox"/> Install radiators	<input type="checkbox"/> None of these
<input type="checkbox"/> Install underfloor heating	<input type="checkbox"/> Don't know
<input type="checkbox"/> Install energy efficiency measures (e.g. insulation, draught proofing, double glazing, heating controls)	<input type="checkbox"/> Other, please state what
<input type="checkbox"/> Install a new shower or electric shower	<input type="text"/>

14 Did you or someone else in your household have to do any of the following as a result of the installation?

Tick all that apply

- Take time off work to be at home at the time of the installation
- Arrange for someone else to be at home at the time of the installation
- Move out for the duration of the installation
- Go to a family / friends' house for showers / baths
- Spend your own money on redecoration (for example, on hiring a decorator or on buying paint or wallpaper for where radiators were moved)
- Spend your own time on redecoration (for example, on painting)
- Don't know

15 Overall, how easy did you find the process of the installation of your Biomass Boiler in your home?

Tick one

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Very easy | Quite easy | Quite difficult | Very difficult | Don't know |
| <input type="checkbox"/> |

16 When (Month and Year) did your Biomass Boiler start working at your home?

MM YYYY Don't know

SECTION C: After the Installation

17 To what extent were you **satisfied with the explanation** given by your Landlord (directly or by a representative) or the installer **on how to use** your Biomass Boiler?

Tick one

- | | | | | | | |
|--------------------------|--------------------------|------------------------------------|--------------------------|--------------------------|--------------------------|---|
| Very satisfied | Fairly satisfied | Neither satisfied nor dissatisfied | Fairly dissatisfied | Very dissatisfied | Don't know | Not applicable (I did not receive an explanation) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

18 Compared with your previous system, how **easy** or **difficult** do you find it to operate your Biomass Boiler?

Tick one

- | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-----------------------------|
| Much easier | Easier | About the same | More difficult | Don't know | Not applicable/new resident |
| <input type="checkbox"/> |

19 Overall, how satisfied are you with each of the following aspects of your Biomass Boiler
Tick one per row

	Very satisfied	Fairly satisfied	Fairly unsatisfied	Very unsatisfied	Don't know / not applicable
How it looks	<input type="checkbox"/>				
Size of the Boiler	<input type="checkbox"/>				
Noise level	<input type="checkbox"/>				
How reliable it is (i.e. whether it breaks down) (excluding the fuel feeding system)	<input type="checkbox"/>				
How reliable the fuel feeding system is (i.e. whether it breaks down)	<input type="checkbox"/>				
Understanding the system controls	<input type="checkbox"/>				
Ease of adjusting the controls	<input type="checkbox"/>				
Cleaning the Biomass Boiler	<input type="checkbox"/>				
Space to keep the fuel	<input type="checkbox"/>				
Time it takes to feed the Boiler	<input type="checkbox"/>				
Keeping the fuel clean	<input type="checkbox"/>				
Keeping the fuel dry	<input type="checkbox"/>				
Keeping the fuel safe	<input type="checkbox"/>				

20 Please tell us whether your Biomass Boiler provides:
Tick one

Heating only

Heating and hot water

Don't know

SECTION D: Room Heating

21 What was the **main** heating system in your home **before** the Biomass Boiler was installed?
Tick one

<input type="checkbox"/> Central heating – Gas (mains)	<input type="checkbox"/> Portable heaters – Electric
<input type="checkbox"/> Central heating – Oil	<input type="checkbox"/> Portable heaters – Bottled gas
<input type="checkbox"/> Central heating – LPG / other bottled gas	<input type="checkbox"/> Communal or district heating
<input type="checkbox"/> Central heating – Solid fuel	<input type="checkbox"/> Don't know
<input type="checkbox"/> Fixed room heaters – Electric (including storage or Economy 7/10)	<input type="checkbox"/> Not applicable / new resident
<input type="checkbox"/> Fixed room heaters – Gas (mains)	<input type="checkbox"/> Other, please describe
<input type="checkbox"/> Fixed room heaters – Oil	
<input type="checkbox"/> Fixed room heaters – LPG / Other bottled gas	
<input type="checkbox"/> Fixed room heaters – Solid fuel (open fire / enclosed stove)	

22 Which of the following best describes the **temperature** achieved by your Biomass Boiler during...
Tick one per row

	Much too hot	Too hot	About right	Too cold	Much too cold	Have not experienced this yet	Don't know
...the coldest days	<input type="checkbox"/>	<input type="checkbox"/>					
...the coldest nights	<input type="checkbox"/>	<input type="checkbox"/>					
Overall	<input type="checkbox"/>	<input type="checkbox"/>					

23 How satisfied are you with the **time** it takes to achieve your desired level of comfort from your Biomass Boiler in...
Tick one per row

	Very satisfied	Fairly satisfied	Fairly unsatisfied	Very unsatisfied	Have not experienced this yet	Don't know
...winter	<input type="checkbox"/>	<input type="checkbox"/>				
...autumn/spring	<input type="checkbox"/>	<input type="checkbox"/>				
...summer	<input type="checkbox"/>	<input type="checkbox"/>				

24 On average, do you run your Biomass Boiler at a higher temperature on your thermostat than you used to do with your previous heating system?

Tick one

- Yes Don't know
 No – it runs at the same temperature Not applicable / new resident
 No – it runs at a lower temperature

25 If you feel **too cold**, what are the main actions you take?

Tick up to three

- Use additional heating sources Wait for the heating system to provide a comfortable level
 Turn up the thermostat Put on additional layers of clothing
 Use a timer to extend the time the heating is on Do nothing
 Turn the heating to be on all the time Don't know
 Adjust the thermostatic radiator valves to increase the temperature Other, please specify
 Adjust the zone control system

26 If you feel **too hot**, what are the main actions you take?

Tick up to three

- Switch off the heating system Remove layers of clothing
 Turn down the thermostat Open windows to ventilate rooms
 Use a timer to reduce the time the heating is on Open doors to ventilate rooms
 Adjust the thermostatic radiator valves to reduce the temperature Do nothing
 Adjust the zone control system to reduce heating / temperature Don't know
 Wait for the heating system to provide a comfortable level Other, please specify

27 Since you have had the Biomass Boiler installed, please tell us if any of the following statements apply to you:

Tick one per row

	Yes	No	Don't know
I heat more rooms in my home now than compared to when I had my previous heating system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have the heating on for more hours now than compared to when I had my previous heating system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have the heating on at a higher temperature now than compared to when I had my previous heating system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Not applicable / new resident			<input type="checkbox"/>

28 During winter (Dec – Feb) have you used any **supplementary heating systems**, in addition to your Biomass Boiler, to achieve the comfort you desire in your home?

Tick one and then proceed to the question number indicated

- Yes → Go to **29**
 No → Go to **31**
 Don't know → Go to **29**

29 Approximately how many hours (on average) per month did you use these supplementary heating systems during the winter (Dec-Feb)?

Tick one per row

	More than a few hours a day	A few hours a day	A few hours once or twice a week	A few hours a month or less	Not at all / not applicable	Don't know
Plug-in electric radiator	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Electric fan heating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Electric fire	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gas / LPG fire	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Open fire	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wood burning stove	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Other → Go to 30						

30 If you ticked "Other", please tell us what supplementary system you used:

SECTION E: Your Hot Water

Please answer Questions 31, 32 and 33 if your Biomass Boiler provides hot water. If not →Go to **34**

31 Before the Biomass Boiler, what was the main heating system you used to heat your hot water?

Tick one

- | | |
|--|--|
| <input type="checkbox"/> Gas | <input type="checkbox"/> Gas fires |
| <input type="checkbox"/> Oil | <input type="checkbox"/> Communal or district heating |
| <input type="checkbox"/> Electric (including Economy 7/10) | <input type="checkbox"/> Don't know |
| <input type="checkbox"/> Coal | <input type="checkbox"/> Not applicable / new resident |
| <input type="checkbox"/> Solid fuel | <input type="checkbox"/> Other, please describe |
| <input type="checkbox"/> Bottled gas / paraffin | <input type="text"/> |

32 How satisfied are you with the amount of hot water available from your Biomass Boiler in...

Tick one per row

	Very satisfied	Fairly satisfied	Fairly unsatisfied	Very unsatisfied	Have not experienced this yet	Don't know
...winter	<input type="checkbox"/>	<input type="checkbox"/>				
...autumn/spring	<input type="checkbox"/>	<input type="checkbox"/>				
... summer	<input type="checkbox"/>	<input type="checkbox"/>				

33 How satisfied are you with the temperature of hot water available from your Biomass Boiler in...

Tick one per row

	Very satisfied	Fairly satisfied	Fairly unsatisfied	Very unsatisfied	Have not experienced this yet	Don't know
...winter	<input type="checkbox"/>	<input type="checkbox"/>				
...autumn/spring	<input type="checkbox"/>	<input type="checkbox"/>				
... summer	<input type="checkbox"/>	<input type="checkbox"/>				

SECTION F: About Your Energy Use

34 Do you actively monitor how you use energy in your home? (By actively monitor we mean checking how much energy you use on a regular basis)

Tick one

- Yes No Don't know

35 Since you have had the Biomass Boiler installed, please state to what extent you agree or disagree with the following statements:

Tick one per row

	Strongly agree	Agree	Disagree	Strongly disagree	Don't know
I consider the way I use heating more now	<input type="checkbox"/>				
I consider the way I use hot water more now	<input type="checkbox"/>				
I am more careful to switch lights and electrical appliances off now	<input type="checkbox"/>				
I open windows and doors to ventilate rooms more often now	<input type="checkbox"/>				
Not applicable / new resident					<input type="checkbox"/>

36 Thinking about your overall bills for energy (your total for electricity and other fuels), have you noticed a change since your Biomass Boiler has been installed?

Tick one then proceed to the question number indicated

- My total household fuel bills have increased →Go to **37**
- My total household fuel bills have decreased →Go to **37**
- No change / my total fuel bills have stayed the same →Go to **38**
- Don't know →Go to **37**
- Not applicable / new resident →Go to **38**
- Other, please specify then →Go to **37**

37 What do you think are the main reasons for the change to your overall / total energy bills?
Tick all that apply. Please answer for all fuels / energy

<input type="checkbox"/> Change in price of fuel	<input type="checkbox"/> I use the heating for more hours than I used to
<input type="checkbox"/> Changed energy supplier	<input type="checkbox"/> I use the heating for fewer hours than I used to
<input type="checkbox"/> Changed energy tariff	<input type="checkbox"/> New windows (e.g. double glazing) installed in my home
<input type="checkbox"/> Changes in grants/subsidies for my fuel (e.g. free / subsidised coal)	<input type="checkbox"/> Changes in my home insulation
<input type="checkbox"/> Colder winters	<input type="checkbox"/> Biomass Boiler installed in my home
<input type="checkbox"/> Change in my household circumstances (e.g. changes in working hours, retired, illness, new baby in the home)	<input type="checkbox"/> Thermostat or thermostatic radiators installed in my home
<input type="checkbox"/> I heat more rooms than I used to	<input type="checkbox"/> Other renewable technology in my home
<input type="checkbox"/> I heat fewer rooms than I used to	<input type="checkbox"/> Other technology changes in my home (additional or new electrical goods, e.g. fridge, lighting)
<input type="checkbox"/> I have the thermostat set to a higher temperature than I used to	<input type="checkbox"/> Don't know
<input type="checkbox"/> I have the thermostat set to a lower temperature than I used to	<input type="checkbox"/> Other reason, please describe

38 Overall, do you think your Biomass Boiler will save you money in the long run?
Tick one

Yes No Don't know

SECTION G: Your Views About Your Biomass Boiler

39 Overall, how satisfied are you with your Biomass Boiler?
Tick one

Very satisfied Fairly satisfied Neither satisfied nor dissatisfied Fairly dissatisfied Very dissatisfied

40 Would you recommend installing a Biomass Boiler to anyone else?
Tick one

Yes No Don't know

41 Which fuels do you use for your biomass heating system?
Tick all that apply

Logs Pellets Woodchips

Other, please specify

42 How easy or difficult do you find it feeding the fuel into your Biomass Boiler / fuel hopper?
Tick one

Very easy Quite easy Quite difficult Very difficult Don't know

43 Where do you usually get your fuel from?
Tick all that apply

I buy it on the internet and it is delivered

I buy it on the internet and I collect it locally

I pick it up from the local store

I pick it up from a local collection point

Through my Landlord

It is delivered via a local supplier

It is delivered by a national supplier

Don't know

Other, please specify _____

44 How much do you estimate you spend on fuel for your Biomass Boiler? Please write the amount in £ below:

45 Is this estimate you have provided for your fuel cost for your Biomass Boiler based on:

Tick one

- A weekly cost A yearly cost
 A monthly cost Don't know
 A quarterly cost

SECTION H: About Your Household

We want to know this information for research purposes only. Your answers will be kept confidential.

46 How do you pay for your electricity and other fuel bills?

Tick all that apply

- Through my rent, rates or service charge payments to my Landlord
 Pre-payment meter
 Bill – by cash, cheque or card
 Bill – by Direct Debit or standing order
 Flexible payments (such as through a Payment Card)
 Don't know
 Prefer not to say
 Other, please describe

47 Do you receive financial support for your fuel bills?

Tick one

- Yes - discount on my fuel bills (e.g. Warm Home Scheme, Warm Home Discount, Social Tariff) No
 Yes - Winter Fuel Payment Don't know
 Yes - I am not sure what support I get Prefer not to say
 Other, please describe

48 Please select your accommodation type:

Tick one

- Detached Part of a converted or shared house (including bed-sits)
 Semi-detached Prefer not to say
 Terraced (including end terrace) Other, please describe
 Purpose built block of flats / tenement
 Sheltered housing accommodation

49 Please tell us when your home was built:

Tick one

- Before 1919 1965 - 1980 Don't know
 1919 - 1944 1981 - 2000 Prefer not to say
 1945 - 1964 2001 or after

50 How many bedrooms does your home have?

Number of bedrooms:	1	2	3	4	5	6	7+	Don't know	Prefer not to say
Tick the box:	<input type="checkbox"/>								

51 How many people of each age group live in your home:

Age	Number of people	Age	Number of people	Age	Number of people
0-4	<input type="text"/>	25-34	<input type="text"/>	65-74	<input type="text"/>
5-11	<input type="text"/>	35-44	<input type="text"/>	75 or over	<input type="text"/>
11-15	<input type="text"/>	45-54	<input type="text"/>	Prefer not to say	<input type="checkbox"/>
16-24	<input type="text"/>	55-64	<input type="text"/>	Don't know	<input type="checkbox"/>

52 Are you:

Male
 Female
 Prefer not to say

53 What age group are you in?

Tick one

16-24
 35-44
 55-64
 75 or over
 25-34
 45-54
 65-74
 Prefer not to say

54 Which of the following categories best describes your current employment:

Tick one

Employed full time
 Student
 Employed part time
 Housewife / househusband
 Self employed
 Prefer not to say
 Unemployed
 Other, please describe
 Retired

55 Which category represents the total annual income of your **WHOLE** household including pensions and other benefits before income tax and National Insurance contributions:

Tick one

Up to £5,199	<input type="checkbox"/>	£32,000 to £36,399	<input type="checkbox"/>
£5,200 to £10,399	<input type="checkbox"/>	£36,400 to £41,599	<input type="checkbox"/>
£10,400 to £15,599	<input type="checkbox"/>	£46,800 to £51,999	<input type="checkbox"/>
£15,600 to £20,799	<input type="checkbox"/>	£52,000 to £71,999	<input type="checkbox"/>
£20,800 to £25,999	<input type="checkbox"/>	£72,000 or over	<input type="checkbox"/>
£26,000 to £31,199	<input type="checkbox"/>	Prefer not to say	<input type="checkbox"/>

We (ICF GHK) or the Department of Energy and Climate Change (DECC) may want to contact you again by post, email or telephone for the purpose of further research, for instance to find out more about the answers you've given. If you are happy for your details to be passed onto DECC for this purpose please confirm below.

56 I am happy to be contacted for research in the future:

Yes
 No

Please confirm your details in the box below:

Name:	<input type="text"/>
Telephone no:	<input type="text"/>
Mobile no:	<input type="text"/>
Email:	<input type="text"/>
Address:	<input type="text"/>

It is sometimes possible to link the data we have collected with other government surveys or datasets held by the government for the purpose of statistical analysis and informing government policy. Your confidentiality will be maintained, and linked data will only be used for the purposes of statistical analysis and informing policy, by researchers authorised by the Department of Energy and Climate Change (DECC). **It will not be possible to identify any person, household or address from any results that may be published.**

57 I am happy for my responses to be passed to the Department of Energy and Climate Change (DECC) for this purpose:

Yes No

Household Meter Number

One of the datasets that may be helpful to link to is electricity consumption. To obtain data for electricity it is useful to have your MPAN number. Your MPAN is the unique identifying number for the electricity supply at your property. It is sometimes known as the "Supply Number" or "S" number. It is a 21 digit number, which should appear on your electricity **bill** (this is different from your customer account number) or other **letter** from your electricity provider (not on your meter).

Your supply number will normally be shown on your bill using a large "S" and a grid of numbers, 8 in the top row and 13 underneath. It might look like this:

S	28	9 8 7	6 5 4
	07	0123	4567 123

58 Please write this 21 digit number in the box below:
If you cannot find this number, please leave the box blank.

S				

PRIZE DRAW

ICF GHK is offering all participants free entry into a prize draw.

All questionnaires completed and returned by 30 April 2014 will be entered into a prize draw. The prizes are:

- 1st prize - £150 in high street vouchers
- 2nd prize - £100 in high street vouchers
- 3rd prize - £50 in high street vouchers

Tick this box if you do not want to be entered into the prize draw.

If you would like to **enter** in the prize draw please enter your details below. We will only use these details to contact you if you win a prize and not for any other purpose.

Name:	
Telephone no:	
Address:	

Thank you for your time and assistance in completing the questionnaire.

Please put your completed questionnaire in the postage-paid envelope provided and post it to us.

If you have lost the envelope please post the questionnaire to us at:
ICF GHK, 30 St Paul's Square, Birmingham B3 1QZ

3.3. Tenant Ground Source Heat Pump Questionnaire



Department of Energy & Climate Change



SECTION A: Before the installation of your Ground Source Heat Pump

1 Were you living at this property **before and/or during** the installation of the Ground Source Heat Pump?
Tick one and then proceed to the question number indicated

Yes, I lived here **before and during** the installation of the Ground Source Heat Pump **Go to → 2**

Yes, I lived here **during but not before** the installation of the Ground Source Heat Pump **Go to → 12**

No, I moved in **after** the Ground Source Heat Pump was installed **Go to → 17**

Don't know **Go to → 2**

2 Before the installation, in what ways did your Landlord (directly or through a representative) contact you to tell you about the Ground Source Heat Pump?
Tick all that apply

Letter through the post Telephone call

By email Personal visit to my home

Through the caretaker I was not informed

Through the tenants and residents association Don't know

Through the installer of the system Other, please tell us how

At a public meeting

3 Before the installation, in what ways were you given a chance to ask your Landlord (directly or through a representative) questions about the Ground Source Heat Pump?
Tick all that apply

Directly with someone at my Landlord's housing office At a meeting on my estate / street / local community centre

Through a Community Liaison person At a meeting / presentation/ exhibition at another public location

Through the caretaker I was **not** given an opportunity to ask my Landlord (directly or through a representative) questions before the installation

By email Don't know

On the phone Other, please tell us how

At a meeting at my home

1 PLEASE TURN OVER THE PAGE →



Department of Energy & Climate Change



4 Please think about all the times your Landlord (directly or through a representative) arranged to talk to you to answer your questions about the Ground Source Heat Pump **before** the installation. How many times did this happen?
Tick one

Never 1 time 2-3 times

4-5 times 6 times or more Don't know

5 Overall, how satisfied are you with how your Landlord (directly or through a representative) discussed the Ground Source Heat Pump with you **before** the installation?
Tick one

Very satisfied	Fairly satisfied	Neither satisfied nor dissatisfied	Fairly dissatisfied	Very dissatisfied	Don't know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6 We would like to know what information you were given by your Landlord (directly or through a representative) **before** the installation of your Ground Source Heat Pump. Please tell us whether they provided you with information on:

Tick one per row

	Yes, I was given enough information	Some information – but I would have liked more	No information on this – I would have liked some	No information – but it was not of interest to me	Don't know
How a Ground Source Heat Pump works to provide heat and/or hot water to my home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
What the Ground Source Heat Pump would look like (appearance)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Where the Ground Source Heat Pump equipment would be located (location)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
What outdoor works (e.g. in the garden) would have to be done to install the Ground Source Heat Pump	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How the controls on the Ground Source Heat Pump would work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How my overall energy bills would change after installing the Ground Source Heat Pump	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2 PLEASE TURN OVER THE PAGE →

7 Overall, how satisfied were you with the information provided by your Landlord (directly or through a representative) about the Ground Source Heat Pump before the installation?
Tick one

Very satisfied	Fairly satisfied	Neither satisfied nor dissatisfied	Fairly dissatisfied	Very dissatisfied	Don't know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8 Did you have a choice about the installation of the Ground Source Heat Pump?
Tick one

Yes – I could decide if I wanted it installed

No – I had no choice about the installation

Don't know

9 Did you want the Ground Source Heat Pump installed in your home?
Tick one and then proceed to the question number indicated

Yes → Go to **11** No → Go to **10**

Not at first, but then I changed my mind → Go to **10**

10 Please tell us why you did not want the Ground Source Heat Pump:
Tick all that apply

I liked my old heating system

I did not want any change in my home

I felt like I didn't know enough about the Ground Source Heat Pump

I wanted a different heating system (not a Ground Source Heat Pump)

I did not like the appearance/ look of the Ground Source Heat Pump

I was worried about the possible disruption indoors from the installation

I was worried about the possible disruption in the outdoor space from the installation

I was worried about learning how to set / control the Ground Source Heat Pump

I was worried about whether the Ground Source Heat Pump would heat my home to the right temperature for me

I was worried about the potential cost of electricity to run the Ground Source Heat Pump

I was worried about the potential noise generated by the Ground Source Heat Pump

Don't know

Other, please describe

11 Why did you agree to having the Ground Source Heat Pump installed in your home?
Please tick all that apply in column A. In column B tick your main reason only.

	A	B
	Tick all that apply	Tick one main reason
Not Applicable – I did not want the Ground Source Heat Pump	<input type="checkbox"/>	<input type="checkbox"/>
I thought it would save me money	<input type="checkbox"/>	<input type="checkbox"/>
My heating system needed to be replaced	<input type="checkbox"/>	<input type="checkbox"/>
My Landlord was planning to upgrade / refurbish the heating system in my home anyway	<input type="checkbox"/>	<input type="checkbox"/>
My Landlord was planning to refurbish / upgrade other things in my home (other than heating) anyway	<input type="checkbox"/>	<input type="checkbox"/>
Recommended by my Landlord	<input type="checkbox"/>	<input type="checkbox"/>
Recommended by neighbours / friends / family	<input type="checkbox"/>	<input type="checkbox"/>
Recommended by a professional (e.g. plumber, engineer)	<input type="checkbox"/>	<input type="checkbox"/>
I thought it would provide a more constant temperature	<input type="checkbox"/>	<input type="checkbox"/>
I thought it would be easier to use/control	<input type="checkbox"/>	<input type="checkbox"/>
No need to arrange purchase / delivery of fuels (other than electricity)	<input type="checkbox"/>	<input type="checkbox"/>
I thought it would be a more reliable energy supply	<input type="checkbox"/>	<input type="checkbox"/>
To be able to generate my own energy	<input type="checkbox"/>	<input type="checkbox"/>
To be more self sufficient	<input type="checkbox"/>	<input type="checkbox"/>
I thought it would help the environment	<input type="checkbox"/>	<input type="checkbox"/>
I thought I could reduce my carbon emissions	<input type="checkbox"/>	<input type="checkbox"/>
I thought it would be more efficient	<input type="checkbox"/>	<input type="checkbox"/>
Complimented another renewable technology installed in my home	<input type="checkbox"/>	<input type="checkbox"/>
Rising prices of fossil fuels (gas, oil etc.)	<input type="checkbox"/>	<input type="checkbox"/>
I liked the technology	<input type="checkbox"/>	<input type="checkbox"/>
Don't know	<input type="checkbox"/>	<input type="checkbox"/>

SECTION B: The Installation Process

12 We would like to know how prepared you felt about the installation process of your Ground Source Heat Pump at your home. Please tell us to what extent you **agree** or **disagree** with each of the statements below:
Tick one per row

Before the installation happened...	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know
I knew what works the installers would have to do in my home to replace the previous system (if relevant) and install the new one (such as replacing the radiators or connecting pipes through external walls)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I knew what works the installers would have to do outside my house (e.g. in the garden) to install the heat exchange device in the ground	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I had enough time to prepare for the works at my home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I knew when the installers would come to my home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I knew how many days I would be without heating and/ or hot water (if applicable)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I knew when the Ground Source Heat Pump would start working	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13 Which of the following did your Landlord do at your home around the same time as installing the Ground Source Heat Pump?
Tick all that apply

<input type="checkbox"/> Redecorate part or all of your home	<input type="checkbox"/> Install another renewable technology (eg. Solar Photovoltaic Panels)
<input type="checkbox"/> Make improvements in your garden or other outside space	<input type="checkbox"/> Install a smart meter
<input type="checkbox"/> Install radiators	<input type="checkbox"/> None of the above
<input type="checkbox"/> Install underfloor heating	<input type="checkbox"/> Don't know
<input type="checkbox"/> Install energy efficiency measures (e.g. insulation, draught proofing, double glazing, heating controls)	<input type="checkbox"/> Other, please state what <input type="text"/>
<input type="checkbox"/> Install a new shower or electric shower	

14 Did you or someone else in your household have to do any of the following as a result of the installation?
Tick all that apply

- Take time off work to be at home at the time of the installation
- Arrange for someone else to be at home at the time of the installation
- Move out for the duration of the installation
- Go to a family / friends' house for showers / baths
- Spend your own money on redecoration (for example, on hiring a decorator or on buying paint or wallpaper for where radiators were moved)
- Spend your own time on redecoration (for example, on painting)
- Don't know

15 Overall, how easy did you find the process of the installation of your Ground Source Heat Pump in your home?
Tick one

Very easy	Quite easy	Quite difficult	Very difficult	Don't know
<input type="radio"/>				

16 When (Month and Year) did your Ground Source Heat Pump start working at your home?

MM YYYY Don't know

SECTION C: After the Installation

17 To what extent were you **satisfied with the explanation** given by your Landlord (directly or by a representative) or the installer on **how to use** your Ground Source Heat Pump?
Tick one

Very satisfied	Fairly satisfied	Neither satisfied nor dissatisfied	Fairly dissatisfied	Very dissatisfied	Don't know	Not applicable (I did not receive an explanation)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

18 Compared with your previous system, how **easy or difficult** do you find it to operate your Ground Source Heat Pump?
Tick one

Much easier	Easier	About the same	More difficult	Don't know	Not applicable/new resident
<input type="radio"/>					

19 Overall, how satisfied are you with each of the following aspects of your Ground Source Heat Pump
Tick one per row

	Very satisfied	Fairly satisfied	Fairly unsatisfied	Very unsatisfied	Don't know / not applicable
Noise level	<input type="radio"/>				
How it looks	<input type="radio"/>				
How reliable it is (i.e. whether it breaks down)	<input type="radio"/>				
Understanding the system controls	<input type="radio"/>				
Ease of adjusting the controls	<input type="radio"/>				

20 Please tell us whether your Ground Source Heat Pump provides:
Tick one and then proceed to the question number indicated

- Heating only →Go to **21**
- Heating and Hot Water →Go to **21**
- Hot water only →Go to **31**
- Don't know →Go to **21**

SECTION D: Room Heating

21 What was the **main heating system** in your home **before** the Ground Source Heat Pump was installed?
Tick one

<input type="checkbox"/> Central heating – Gas (mains)	<input type="checkbox"/> Fixed room heaters – LPG/ Other bottled gas
<input type="checkbox"/> Central heating – Oil	<input type="checkbox"/> Fixed room heaters – Solid Fuel (open fire/enclosed stove)
<input type="checkbox"/> Central heating – LPG / Other bottled gas	<input type="checkbox"/> Portable heaters – Electric
<input type="checkbox"/> Central heating – Solid fuel	<input type="checkbox"/> Portable heaters – Bottled Gas
<input type="checkbox"/> Fixed room heaters – Electric (including storage or Economy 7/10)	<input type="checkbox"/> Communal or district heating
<input type="checkbox"/> Fixed room heaters – Gas (mains)	<input type="checkbox"/> Don't know / Not applicable
<input type="checkbox"/> Fixed room heaters – Oil	<input type="checkbox"/> Other , please describe

22 Which of the following best describes the **temperature** achieved by your Ground Source Heat Pump during:
Tick one per row

	Much too hot	Too hot	About right	Too cold	Much too cold	Have not experienced this yet	Don't know
... the coldest days	<input type="radio"/>	<input type="radio"/>					
... the coldest nights	<input type="radio"/>	<input type="radio"/>					
Overall	<input type="radio"/>	<input type="radio"/>					

23 How satisfied are you with the **time** it takes to achieve your desired level of comfort from your Ground Source Heat Pump in...
Tick one per row

	Very satisfied	Fairly satisfied	Fairly unsatisfied	Very unsatisfied	Have not experienced this yet	Don't know
... winter	<input type="radio"/>	<input type="radio"/>				
...autumn/spring	<input type="radio"/>	<input type="radio"/>				
... summer	<input type="radio"/>	<input type="radio"/>				

24 On average, do you run your Ground Source Heat Pump at a higher temperature on your thermostat than you used to do with your previous heating system?

Tick one

- Yes Not applicable / new resident
 No – it runs at the same temperature Don't know
 No – it runs at a lower temperature

25 If you feel **too cold**, what are the main actions you take?

Tick up to three

- Use additional heating sources Wait for the heating system to provide a comfortable level
 Turn up the thermostat Put on additional layers of clothing
 Use a timer to extend the time the heating is on Do nothing
 Turn the heating to be on all the time Don't know
 Adjust the thermostatic radiator valves to increase the temperature Other, please specify
 Adjust the zone control system

26 If you feel **too hot**, what are the main actions you take?

Tick up to three

- Switch off the heating system Remove layers of clothing
 Turn down the thermostat Open windows to ventilate rooms
 Use a timer to reduce the time the heating is on Open doors to ventilate rooms
 Adjust the thermostatic radiator valves to reduce the temperature Do nothing
 Adjust the zone control system to reduce heating/temperature Don't know
 Wait for the heating system to provide a comfortable level Other, please specify

27 Since you have had the Ground Source Heat Pump installed, please tell us if any of the following statements apply to you:

Tick one per row

	Yes	No	Don't know
I heat more rooms in my home now than compared to when I had my previous heating system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have the heating on for more hours now than compared to when I had my previous heating system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have the heating on at a higher temperature now than compared to when I had my previous heating system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Not applicable / new resident			<input type="checkbox"/>

28 During winter (Dec – Feb) have you used any **supplementary heating systems**, in addition to your Ground Source Heat Pump, to achieve the comfort you desire in your home?

Tick one and then proceed to the question number indicated

- Yes → Go to **29**
 No → Go to **31**
 Don't know → Go to **29**

29 Approximately how many hours (on average) per month did you use these supplementary heating systems during the winter (Dec-Feb)?

Tick one per row

	More than a few hours a day	A few hours a day	A few hours once or twice a week	A few hours a month or less	Not at all / Not applicable	Don't know
Plug in electric radiator	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Electric fan heating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Electric fire	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gas/LPG fire	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Open fire	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wood burning stove	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Other → Go to 30						

30 If you ticked "Other" please, tell us what supplementary system you used:

SECTION E: Your Hot Water

Please answer Questions 31, 32 and 33 if your Ground Source Heat Pump provides hot water. If not →Go to **34**

31 Before the Ground Source Heat Pump, what was the main heating system you used to heat your hot water?

Tick one

- | | |
|--|--|
| <input type="checkbox"/> Gas | <input type="checkbox"/> Gas fires |
| <input type="checkbox"/> Oil | <input type="checkbox"/> Communal or district heating |
| <input type="checkbox"/> Electric (including Economy 7/10) | <input type="checkbox"/> Don't know |
| <input type="checkbox"/> Coal | <input type="checkbox"/> Not applicable / new resident |
| <input type="checkbox"/> Solid fuel | <input type="checkbox"/> Other, please describe |
| <input type="checkbox"/> Bottled gas / paraffin | <input type="text"/> |

32 How satisfied are you with the amount of hot water available from your Ground Source Heat Pump in...

Tick one per row

	Very satisfied	Fairly satisfied	Fairly unsatisfied	Very unsatisfied	Have not experienced this yet	Don't know
... winter	<input type="checkbox"/>	<input type="checkbox"/>				
...autumn/spring	<input type="checkbox"/>	<input type="checkbox"/>				
... summer	<input type="checkbox"/>	<input type="checkbox"/>				

33 How satisfied are you with the temperature of hot water available from your Ground Source Heat Pump in...

Tick one per row

	Very satisfied	Fairly satisfied	Fairly unsatisfied	Very unsatisfied	Have not experienced this yet	Don't know
... winter	<input type="checkbox"/>	<input type="checkbox"/>				
...autumn/spring	<input type="checkbox"/>	<input type="checkbox"/>				
... summer	<input type="checkbox"/>	<input type="checkbox"/>				

SECTION F: About Your Energy Use

34 Do you actively monitor how you use energy in your home? (By actively monitor we mean checking how much energy you use on a regular basis)

Tick one

- Yes No Don't know

35 Since you have had the Ground Source Heat Pump installed, please state to what extent you agree or disagree with the following statements:

Tick one per row

	Strongly agree	Agree	Disagree	Strongly disagree	Don't know
I consider the way I use heating more now	<input type="checkbox"/>				
I consider the way I use hot water more now	<input type="checkbox"/>				
I am more careful to switch lights and electrical appliances off now	<input type="checkbox"/>				
I open windows and doors to ventilate rooms more often now	<input type="checkbox"/>				
Not applicable / new resident					<input type="checkbox"/>

36 Thinking about your overall bills for energy (your total for electricity and other fuels), have you noticed a change since your Ground Source Heat Pump has been installed?

Tick one and then proceed to the question number indicated

- My total household fuel bills have increased →Go to **37**
- My total household fuel bills have decreased →Go to **37**
- No change / my total fuel bills have stayed the same → Go to **38**
- Don't know →Go to **37**
- Not applicable / new resident →Go to **38**
- Other, please specify then →Go to **37**

37 What do you think are the main reasons for the change to your overall/total energy bills?

Tick all that apply – Please answer for all fuels / energy

- Change in price of fuel
- Changed energy supplier
- Changed energy tariff
- Changes in grants/subsidies for my fuel (e.g. free/subsidised coal)
- Colder winters
- Change in my household circumstances (e.g. changes in working hours, retired, illness, new baby in the home)
- I heat more rooms than I used to
- I heat fewer rooms than I used to
- I have the thermostat set to a higher temperature than I used to
- I have the thermostat set to a lower temperature than I used to
- I use the heating for more hours than I used to
- I use the heating for fewer hours than I used to
- New windows (e.g. double glazing) installed in my home
- Changes in my home insulation
- Ground Source Heat Pump installed in my home
- Thermostat or thermostatic radiators installed in my home
- Other renewable technology in my home
- Other technology changes in my home (additional or new electrical goods, e.g. fridge, lighting)
- Don't know
- Other reason, please describe

38 Overall, do you think your Ground Source Heat Pump will save you money in the long run?

Tick one

- Yes No Don't know

SECTION G: Your Views About Your Ground Source Heat Pump Heating System

39 Overall, how satisfied are you with your Ground Source Heat Pump?

Tick one

- | | | | | |
|--------------------------|--------------------------|------------------------------------|--------------------------|--------------------------|
| Very satisfied | Fairly satisfied | Neither satisfied nor dissatisfied | Fairly dissatisfied | Very dissatisfied |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

40 Would you recommend installing a Ground Source Heat Pump to anyone else?

Tick one

- Yes No Don't know

SECTION H: About Your Household

We want to know this information for research purposes only. Your answers will be kept confidential.

41 How do you pay for your electricity and other fuel bills?

Tick all that apply

- Through my rent, rates or service charge payments to my Landlord
- Pre-payment meter
- Bill – by cash, cheque or card
- Bill – by Direct Debit or standing order
- Flexible payments (such as through a Payment Card)
- Don't know
- Prefer not to say
- Other, please describe

42 Do you receive financial support for your fuel bills?

Tick one

- Yes - discount on my fuel bills (e.g. Warm Home Scheme, Warm Home Discount, Social Tariff)
- Yes - Winter Fuel Payment
- Yes - I am not sure what support I get
- No
- Don't know
- Prefer not to say
- Other, please describe

Registered social landlords and social tenants

43 Please select your accommodation type:
Tick all that apply

Detached Sheltered housing accommodation
 Semi-detached Part of a converted or shared house (including bed-sits)
 Terraced (including end terrace) Prefer not to say
 Purpose built block of flats/tenement Other, please describe

44 Please tell us when your home was built:
Tick one

Before 1919 1965 - 1980 Don't know
 1919 - 1944 1981 - 2000 Prefer not to say
 1945 - 1964 2001 or after

45 How many bedrooms does your home have?

Number of bedrooms:	1	2	3	4	5	6	7+	Don't know	Prefer not to say
Tick the box:	<input type="checkbox"/>								

46 How many people of each age group live in your home:

Age	Number of people	Age	Number of people	Age	Number of people
0-4	<input type="text"/>	25-34	<input type="text"/>	65-74	<input type="text"/>
5-11	<input type="text"/>	35-44	<input type="text"/>	75 or over	<input type="text"/>
11-15	<input type="text"/>	45-54	<input type="text"/>	Prefer not to say	<input type="checkbox"/>
16-24	<input type="text"/>	55-64	<input type="text"/>	Don't know	<input type="checkbox"/>

47 Are you:

Male Female Prefer not to say

48 What age group are you in?
Tick one

16 - 24 35 - 44 55 - 64 75 or over
 25 - 34 45 - 54 65 - 74 Prefer not to say

49 Which of the following categories best describes your current employment:
Tick one

Employed full time Student
 Employed part time Housewife / househusband
 Self employed Prefer not to say
 Unemployed Other, please describe

50 Which category represents the total annual income of your WHOLE household including pensions and other benefits before income tax and National Insurance contributions:
Tick one

Up to £5,199	<input type="checkbox"/>	£32,000 to £36,399	<input type="checkbox"/>
£5,200 to £10,399	<input type="checkbox"/>	£36,400 to £41,599	<input type="checkbox"/>
£10,400 to £15,599	<input type="checkbox"/>	£46,800 to £51,999	<input type="checkbox"/>
£15,600 to £20,799	<input type="checkbox"/>	£52,000 to £71,999	<input type="checkbox"/>
£20,800 to £25,999	<input type="checkbox"/>	£72,000 or over	<input type="checkbox"/>
£26,000 to £31,199	<input type="checkbox"/>	Prefer not to say	<input type="checkbox"/>

We (ICF GHK) or the Department of Energy and Climate Change (DECC) may want to contact you again by post, email or telephone for the purpose of further research, for instance to find out more about the answers you've given. If you are happy for your details to be passed onto DECC for this purpose please confirm below.

51 I am happy to be contacted for research in the future:

Yes No

Please confirm your details in the box below:

Name:	
Telephone no:	
Mobile no:	
Email:	
Address:	

It is sometimes possible to link the data we have collected with other government surveys or datasets held by the government for the purpose of statistical analysis and informing government policy. Your confidentiality will be maintained, and linked data will only be used for the purposes of statistical analysis and informing policy, by researchers authorised by the Department of Energy and Climate Change (DECC). It will not be possible to identify any person, household or address from any results that may be published.

52 I am happy for my responses to be passed to the Department of Energy and Climate Change (DECC) for this purpose:

Yes No

Household Meter Number

One of the datasets that may be helpful to link to is electricity consumption. To obtain data for electricity it is useful to have your MPAN number. Your MPAN is the unique identifying number for the electricity supply at your property. It is sometimes known as the "Supply Number" or "S" number. It is a 21 digit number, which should appear on your electricity bill (this is different from your customer account number) or other letter from your electricity provider (not on your meter).

Your supply number will normally be shown on your bill using a large "S" and a grid of numbers, 8 in the top row and 13 underneath. It might look like this:

S	28	9 8 7	6 5 4
	07	0123	4567 123

53 Please write this 21 digit number in the box below:
If you cannot find this number, please leave the box blank.

S			



PRIZE DRAW

ICF GHK is offering all participants free entry into a prize draw.

All questionnaires completed and returned by 30th April 2014 will be entered into a prize draw. The prizes are:

- 1st prize - £150 in high street vouchers
- 2nd prize - £100 in high street vouchers
- 3rd prize - £50 in high street vouchers

Tick this box if you do not want to be entered into the prize draw.

If you would like to **enter** in the prize draw please enter your details below. We will only use these details to contact you if you win a prize and not for any other purpose.

Name:	
Telephone no:	
Address:	

Thank you for your time and assistance in completing the questionnaire.

Please put your completed questionnaire in the postage-paid envelope provided and post it to us.

If you have lost the envelope please post the questionnaire to us at:
ICF GHK, 30 St Paul's Square, Birmingham B3 1QZ

3.4. Tenant Solar Thermal System Questionnaire



SECTION A: Before the installation of your Solar Thermal System

1 Were you living at this property **before and/or during** the installation of the Solar Thermal System?
Tick one and then proceed to the question number indicated

Yes, I lived here **before and during** the installation of the Solar Thermal System **Go to → 2**

Yes, I lived here **during but not before** the installation of the Solar Thermal System **Go to → 12**

No, I moved in **after** the Solar Thermal System was installed **Go to → 17**

Don't know **Go to → 2**

2 Before the installation, in what ways did your Landlord (directly or through a representative) contact you to tell you about the Solar Thermal System?
Tick all that apply

Letter through the post Telephone call

By email Personal visit to my home

Through the caretaker I was not informed

Through the tenants and residents association Don't know

Through the installer of the system Other, please tell us how

At a public meeting

3 Before the installation, in what ways were you given a chance to ask your Landlord (directly or through a representative) questions about the Solar Thermal System?
Tick all that apply

Directly with someone at my Landlord's housing office At a meeting on my estate / street / local community centre

Through a Community Liaison person At a meeting / presentation/ exhibition at another public location

Through the caretaker I was **not** given an opportunity to ask my Landlord (directly or through a representative) questions before the installation

By email Don't know

On the phone Other, please tell us how

At a meeting at my home



4 Please think about all the times your Landlord (directly or through a representative) arranged to talk to you to answer your questions about the Solar Thermal System **before** the installation. How many times did this happen?
Tick one

Never 1 time 2-3 times

4-5 times 6 times or more Don't know

5 Overall, how satisfied are you with how your Landlord (directly or through a representative) discussed the Solar Thermal System with you **before** the installation?
Tick one

Very satisfied	Fairly satisfied	Neither satisfied nor dissatisfied	Fairly dissatisfied	Very dissatisfied	Don't know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6 We would like to know what information you were given by your Landlord (directly or through a representative) **before** the installation of your Solar Thermal System. Please tell us whether they provided you with information on:
Tick one per row

	Yes, I was given enough information	Some information – but I would have liked more	No information on this – I would have liked some	No information – but it was not of interest to me	Don't know
How a Solar Thermal System works to provide hot water to my home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
What the Solar Thermal System would look like (appearance)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Where the Solar Thermal System equipment would be located (location)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How the controls on the Solar Thermal System work alongside my heating system	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How my overall energy bills would change after installing the Solar Thermal System	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7 Overall, how satisfied were you with the information provided by your Landlord (directly or through a representative) about the Solar Thermal System before the installation?

Tick one

Very satisfied	Fairly satisfied	Neither satisfied nor dissatisfied	Fairly dissatisfied	Very dissatisfied	Don't know
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8 Did you have a choice about the installation of the Solar Thermal System?

Tick one

- Yes – I could decide if I wanted it installed
- No – I had no choice about the installation
- Don't know

9 Did you want the Solar Thermal System installed in your home?

Tick one and then proceed to the question number indicated

- Yes → Go to **11**
- No → Go to **10**
- Not at first, but then I changed my mind → Go to **10**

10 Please tell us why you did not want the Solar Thermal System:

Tick all that apply

- I liked my old hot water heating system
- I did not want any change in my home
- I felt like I didn't know enough about the Solar Thermal System
- I wanted a different hot water heating system (not a Solar Thermal System)
- I did not like the appearance/ look of the Solar Thermal System
- I was worried about the mess from the installation
- I was worried about the disruption from the installation
- I was worried about learning how to set / control the Solar Thermal System
- I was worried about whether the Solar Thermal System would heat my water to the right temperature for me
- I was worried about the amount of hot water that would be available from the Solar Thermal System
- I was worried about the times of day hot water would be available from the Solar Thermal System
- I was worried about the potential cost of electricity to run an Solar Thermal System
- Don't know
- Other, please describe

11 Why did you agree to having the Solar Thermal System installed in your home?

Please tick all that apply in column A. In column B tick your main reason only.

	Tick all that apply	Tick one main reason
Not Applicable – I did not want the Solar Thermal System	<input type="checkbox"/>	<input type="checkbox"/>
I thought it would save me money	<input type="checkbox"/>	<input type="checkbox"/>
My Landlord was planning to upgrade / refurbish the hot water system in my home anyway	<input type="checkbox"/>	<input type="checkbox"/>
My Landlord was planning to refurbish / upgrade other things in my home (other than hot water heating) anyway	<input type="checkbox"/>	<input type="checkbox"/>
Recommended by my Landlord	<input type="checkbox"/>	<input type="checkbox"/>
Recommended by neighbours / friends / family	<input type="checkbox"/>	<input type="checkbox"/>
Recommended by a professional (e.g. plumber, engineer)	<input type="checkbox"/>	<input type="checkbox"/>
I thought it would be easier to use/control	<input type="checkbox"/>	<input type="checkbox"/>
I thought it would be a more reliable energy supply	<input type="checkbox"/>	<input type="checkbox"/>
To be able to generate my own energy	<input type="checkbox"/>	<input type="checkbox"/>
To be more self sufficient	<input type="checkbox"/>	<input type="checkbox"/>
I thought it would help the environment	<input type="checkbox"/>	<input type="checkbox"/>
I thought I could reduce my carbon emissions	<input type="checkbox"/>	<input type="checkbox"/>
I thought it would be more efficient	<input type="checkbox"/>	<input type="checkbox"/>
Complimented another renewable technology installed in my home	<input type="checkbox"/>	<input type="checkbox"/>
Rising prices of fossil fuels (gas, oil etc.)	<input type="checkbox"/>	<input type="checkbox"/>
I liked the technology	<input type="checkbox"/>	<input type="checkbox"/>
Don't know	<input type="checkbox"/>	<input type="checkbox"/>

SECTION B: The Installation Process

12 We would like to know how prepared you felt about the installation process of your Solar Thermal System at your home. Please tell us to what extent you **agree** or **disagree** with each of the statements below:
Tick one per row

Before the installation happened...	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know
I knew what works the installers would have to do in my home to replace the previous system (if relevant) and install the new one (such as accessing the roof or fitting a hot water cylinder)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I had enough time to prepare for the works at my home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I knew when the installers would come to my home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I knew how long I would be without hot water (if applicable)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I knew when the Solar Thermal System would start working	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13 Which of the following did your Landlord do at your home around the same time as installing the Solar Thermal System?
Tick all that apply

Install energy efficiency measures (e.g. insulation, draught proofing, double glazing, heating controls)
 None of these

Install a new shower or electric shower
 Don't know

Install another renewable technology (e.g. Solar Photovoltaic Panels)
 Other, please state

Install a smart meter

14 Did you or someone else in your household have to do any of the following as a result of the installation?
Tick all that apply

Take time off work to be at home at the time of the installation
 Arrange for someone else to be at home at the time of the installation
 Move out for the duration of the installation
 Go to a family / friends' house for showers / baths
 Spend your own money on redecoration (for example, on hiring a decorator or on buying paint)
 Don't know

15 Overall, how easy did you find the process of the installation of your Solar Thermal System in your home?
Tick one

Very easy Quite easy Quite difficult Very difficult Don't know

16 When (Month and Year) did your Solar Thermal System start working at your home?

MM YYYY Don't know

SECTION C: After the Installation

17 To what extent were you **satisfied with the explanation** given by your Landlord (directly or by a representative) or the installer on **how to use** your Solar Thermal System?
Tick one

Very satisfied Fairly satisfied Neither satisfied nor dissatisfied Fairly dissatisfied Very dissatisfied Don't know Not applicable (I did not receive an explanation)

18 Compared with your previous hot water system, how easy or difficult do you find it to operate your Solar Thermal System?

Tick one

Much easier	Easier	About the same	More difficult	Don't know	Not applicable/ new resident
<input type="radio"/>					

19 Overall, how satisfied are you with each of the following aspects of your Solar Thermal System?

Tick one per row

	Very satisfied	Fairly satisfied	Fairly unsatisfied	Very unsatisfied	Don't know / not applicable
How it looks	<input type="radio"/>				
How reliable it is (i.e. whether it breaks down)	<input type="radio"/>				
Understanding the system controls	<input type="radio"/>				
Ease of adjusting the controls	<input type="radio"/>				

SECTION D: Your Hot Water

20 Before the Solar Thermal System, what was the main heating system you used to heat your hot water?

Tick one

<input type="checkbox"/> Gas	<input type="checkbox"/> Communal or district heating
<input type="checkbox"/> Oil	<input type="checkbox"/> Don't know
<input type="checkbox"/> Electric (including Economy 7/10)	<input type="checkbox"/> Not applicable / new resident
<input type="checkbox"/> Coal	<input type="checkbox"/> Other, please describe
<input type="checkbox"/> Solid fuel	
<input type="checkbox"/> Bottled gas / paraffin	

21 How satisfied are you with the amount of hot water available from your Solar Thermal System in...

Tick one per row

	Very satisfied	Fairly satisfied	Fairly unsatisfied	Very unsatisfied	Have not experienced this yet	Don't know
... winter	<input type="radio"/>	<input type="radio"/>				
... autumn/spring	<input type="radio"/>	<input type="radio"/>				
... summer	<input type="radio"/>	<input type="radio"/>				

22 How satisfied are you with the temperature of hot water available from your Solar Thermal System in...

Tick one per row

	Very satisfied	Fairly satisfied	Fairly unsatisfied	Very unsatisfied	Have not experienced this yet	Don't know
... winter	<input type="radio"/>	<input type="radio"/>				
... autumn/spring	<input type="radio"/>	<input type="radio"/>				
... summer	<input type="radio"/>	<input type="radio"/>				

23 Since the installation of the Solar Thermal System, have you changed the times when you use hot water?

Tick one then proceed to the question number indicated

Yes → Go to **24**
 No → Go to **25**
 Don't know → Go to **24**

24 Please tell us in what way you have changed the times when you use hot water?

SECTION E: About Your Energy Use

25 Do you actively monitor how you use energy in your home? (By actively monitor we mean checking how much energy you use on a regular basis)
 Tick one
 Yes No Don't know

26 Since you have had the Solar Thermal System installed, please state to what extent you agree or disagree with the following statements:
 Tick one per row

	Strongly agree	Agree	Disagree	Strongly Disagree	Don't know
I consider the way I use hot water more now	<input type="radio"/>				
I consider the way I use heating more now	<input type="radio"/>				
I am more careful to switch lights and electrical appliances off now	<input type="radio"/>				
I open windows and doors to ventilate rooms more often now	<input type="radio"/>				
Not applicable / new resident					<input type="radio"/>

27 Thinking about your overall bills for energy (your total for electricity, gas and other fuels), have you noticed a change since your Solar Thermal System has been installed?
 Tick one then proceed to the question number indicated

My total household fuel bills have increased → Go to **28**

My total household fuel bills have decreased → Go to **28**

No change / my total fuel bills have stayed the same → Go to **29**

I don't know → Go to **28**

Not applicable / new resident → Go to **29**

Other, please specify then → Go to **28**

28 What do you think are the main reasons for the change to your overall/total energy bills?
 Tick all that apply – Please answer for all fuels / energy

<input type="checkbox"/> Change in price of fuel	<input type="checkbox"/> I have the thermostat set to a lower temperature than I used to
<input type="checkbox"/> Changed energy supplier	<input type="checkbox"/> I use the heating for more hours than I used to
<input type="checkbox"/> Changed energy tariff	<input type="checkbox"/> I use the heating for fewer hours than I used to
<input type="checkbox"/> Changes in grants/subsidies for my fuel (e.g. free/subsidised coal)	<input type="checkbox"/> New windows (e.g. double glazing) installed in my home
<input type="checkbox"/> Colder winters	<input type="checkbox"/> Solar Thermal System installed in my home
<input type="checkbox"/> Change in my household circumstances (e.g. changes in working hours, retired, illness, new baby in the home)	<input type="checkbox"/> Changes in my home installation
<input type="checkbox"/> I use more hot water than I used to	<input type="checkbox"/> Thermostat or thermostatic radiators installed in my home
<input type="checkbox"/> I use less hot water than I used to	<input type="checkbox"/> Other renewable technology in my home
<input type="checkbox"/> I heat more rooms than I used to	<input type="checkbox"/> Other technology changes in my home (additional or new electrical goods, e.g. fridge, lighting)
<input type="checkbox"/> I heat fewer rooms than I used to	<input type="checkbox"/> Don't know
<input type="checkbox"/> I have the thermostat set to a higher temperature than I used to	<input type="checkbox"/> Other reason, please describe

29 Overall, do you think your Solar Thermal System will save you money in the long run?
 Tick one
 Yes No Don't know

SECTION F: Your Views About Your Solar Thermal System

30 Overall, how satisfied are you with your Solar Thermal System?
 Tick one

Very satisfied	Fairly satisfied	Neither satisfied nor dissatisfied	Fairly dissatisfied	Very dissatisfied
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

31 Would you recommend installing a Solar Thermal System to anyone else?

Tick one

- Yes No Don't know

SECTION G: About Your Household

We want to know this information for research purposes only. Your answers will be kept confidential.

32 How do you pay for your electricity and other fuel bills?

Tick all that apply

- Through my rent, rates or service charge payments to my Landlord
 Pre-payment meter
 Bill – by cash, cheque or card
 Bill – by Direct Debit or standing order
 Flexible payments (such as through a Payment Card)
 Don't know
 Prefer not to say
 Other, please describe

33 Do you receive financial support for your fuel bills?

Tick one

- Yes - discount on my fuel bills (e.g. Warm Home Scheme, Warm Home Discount, Social Tariff) No
 Yes - Winter Fuel Payment Don't know
 Yes - I am not sure what support I get Prefer not to say
 Other, please describe

34 Please select your accommodation type:

Tick all that apply

- Detached Sheltered housing accommodation
 Semi-detached Part of a converted or shared house (including bed-sits)
 Terraced (including end terrace) Prefer not to say
 Purpose built block of flats/tenement Other, please describe

35 Please tell us when your home was built:

Tick one

- Before 1919 1965 - 1980 Don't know
 1919 - 1944 1981 - 2000 Prefer not to say
 1945 - 1964 2001 or after

36 How many bedrooms does your home have?

Number of bedrooms:	1	2	3	4	5	6	7+	Don't know	Prefer not to say
Tick the box:	<input type="checkbox"/>								

37 How many people of each age group live in your home:

Age	Number of people	Age	Number of people	Age	Number of people
0-4	<input type="text"/>	25-34	<input type="text"/>	65-74	<input type="text"/>
5-11	<input type="text"/>	35-44	<input type="text"/>	75 or over	<input type="text"/>
11-15	<input type="text"/>	45-54	<input type="text"/>	Prefer not to say	<input type="text"/>
16-24	<input type="text"/>	55-64	<input type="text"/>	Don't know	<input type="text"/>

38 Are you:

- Male Female Prefer not to say

39 What age group are you in?

Tick one

- 16 – 24 35 – 44 55 - 64 75 or over
 25 – 34 45 – 54 65 - 74 Prefer not to say

40 Which of the following categories best describes your current employment:

Tick one

- Employed full time Student
 Employed part time Housewife / househusband
 Self employed Prefer not to say
 Unemployed Other, please describe
 Retired

41 Which category represents the total annual income of your **WHOLE** household including pensions and other benefits before income tax and National Insurance contributions:

Tick one

- | | | | |
|--------------------|-----------------------|--------------------|-----------------------|
| Up to £5,199 | <input type="radio"/> | £32,000 to £36,399 | <input type="radio"/> |
| £5,200 to £10,399 | <input type="radio"/> | £36,400 to £41,599 | <input type="radio"/> |
| £10,400 to £15,599 | <input type="radio"/> | £46,800 to £51,999 | <input type="radio"/> |
| £15,600 to £20,799 | <input type="radio"/> | £52,000 to £71,999 | <input type="radio"/> |
| £20,800 to £25,999 | <input type="radio"/> | £72,000 or over | <input type="radio"/> |
| £26,000 to £31,199 | <input type="radio"/> | Prefer not to say | <input type="radio"/> |

We (ICF GHK) or the Department of Energy and Climate Change (DECC) may want to contact you again by post, email or telephone for the purpose of further research, for instance to find out more about the answers you've given. If you are happy for your details to be passed onto DECC for this purpose please confirm below.

42 I am happy to be contacted for research in the future:

- Yes No

43 Please confirm your details in the box below:

Name:	
Telephone no:	
Mobile no:	
Email:	
Address:	

It is sometimes possible to link the data we have collected with other government surveys or datasets held by the government for the purpose of statistical analysis and informing government policy. Your confidentiality will be maintained, and linked data will only be used for the purposes of statistical analysis and informing policy, by researchers authorised by the Department of Energy and Climate Change (DECC). **It will not be possible to identify any person, household or address from any results that may be published.**

44 I am happy for my responses to be passed to the Department of Energy and Climate Change (DECC) for this purpose:

- Yes No

Household Meter Number

One of the datasets that may be helpful to link to is electricity consumption. To obtain data for electricity it is useful to have your MPAN number. Your MPAN is the unique identifying number for the electricity supply at your property. It is sometimes known as the "Supply Number" or "S" number. It is a 21 digit number, which should appear on your electricity bill (this is different from your customer account number) or other letter from your electricity provider (not on your meter).

Your supply number will normally be shown on your bill using a large "S" and a grid of numbers, 8 in the top row and 13 underneath. It might look like this:

S	28	9 8 7	6 5 4
	07	0123	4567 123

45 Please write this 21 digit number in the box below:
If you cannot find this number, please leave the box blank.

S				

It is also helpful to obtain data for mains gas, from your MPRN number. This number is unique to your property and is sometimes called the M number or Meter Point Reference Number. It should be printed on a recent gas bill, usually on either the first page or reverse of the front page, or other letter from your gas supplier. This is different from your gas supplier account number on the meter serial number printed on the meter itself.

46 Please write this 6 to 10 digit number in the box below:
If you cannot find this number, please leave the box blank.

MPRN Number:

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PRIZE DRAW

ICF GHK is offering all participants free entry into a prize draw.

All questionnaires completed and returned by 30th April 2014 will be entered into a prize drawn. The prizes are:

- 1st prize - £150 in high street vouchers
- 2nd prize - £100 in high street vouchers
- 3rd prize - £50 in high street vouchers

Tick this box if you do not want to be entered into the prize draw.

If you would like to enter in the prize draw please enter your details below. We will only use these details to contact you if you win a prize and not for any other purpose.

Name:	
Telephone no:	
Address:	

Thank you for your time and assistance in completing the questionnaire.

Please put your completed questionnaire in the postage-paid envelope provided and post it to us.

If you have lost the envelope please post the questionnaire to us at:
ICF GHK 30 St Paul's Square, Birmingham B3 1QZ

3.5. RSL Lead Interview Topic Guide

3.5.1. Background

This topic guide is for interviews with leads from 'Registered Social Landlords' (RSLs) who participated in the Renewable Heat Premium Payment (RHPP) scheme phase 2.

The purpose of the RSL competition was to provide grant funding for RSLs to install renewable heat technologies (RHT) in their properties – particularly in off-gas areas.

For the original competitions, there was £175k maximum individual grant per project as per state aid rules for the latter competitions, this cap was removed.

Retrofit only (no new build). Eligible technologies: biomass boilers, solar thermal, ground source heat pumps, air to water heat pumps and, water to water source heat pumps (must be certified under MCS, Solar Kitemark or equivalent.).

The original competition was launched on 28 May 2012 and closed on 4 July 2012. 72 successful bids were submitted from 69 different organisations. All bids submitted were funded. The total value of the combined applicants received was just over £5 million. All projects needed to be completed by 31 March 2013.

There were four rounds of competition to use up the available budget and incentivise more installations.

The logic model outlines the stages for this group, which were:

- Promotion,
 - With press release and coverage in trade press;
 - A web page created by EST and an information line provided;
 - DECC and EST joint workshops for RSLs, including presentations by RSLs participating in RHPP 1 to introduce and promote the scheme;
 - Marketing by providers promoting their technology alongside RHPP.
- Research and initial development for organisational decision to enter competition;
- Project design;
- Application to competition;
- Award,
 - two stages of assessment – EST and DECC;
 - scoring system of: 'Value for Money' funds sought against number of installations; 'Energy Savings', based on kWh/Y from total measures and installations; 'Deliverability and Delivery Innovation', which is the ability to install; and 'Fuel Displaced' awarded and carbon intensity of fuel key.
- Project implementation;
- Use and operation;
- Monitoring and follow-up, with meters installed and reporting required.

The RSL Sample

This topic guide must be tailored to what we know about the RSL participating – see supporting documentation relating to their application and scheme.

Not every group participating in the research progressed to the end of the pathway. The pathways the evaluation is exploring are:

- Those who were unsuccessful in RHPP1 and did not apply to RHPP2
- Those who applied, were approved but did not implement;
- Those who applied, were approved and proceeded; and
- Those who took things forward but outside of the RHPP, for example if there was a better deal offered outside the scheme

This topic guide provides a comprehensive framework for understanding the RSL competitions and the experiences of those within it. You should use the guide to ensure that these key areas are addressed:

- Organisational decision making and planning
- Tenant engagement – consultation and support
- RHT – choice of technology and experience of use
- Views on the scheme – motivations, enablers and barriers to (implementation) success.

Remember: the interview is a *conversation with a purpose* and the topic guide must be used to guide the discussion. It may not be linear so make sure you are familiar with the topic guide overall.

3.5.2. Topic Guide Introduction

Introduce yourself.

Remind the participant of the purpose of the interview – using the materials already provided to the RSL in negotiating their participation.

Thank the participant for giving their time.

Ask for permission to record the interview. Remind the participant of the confidential nature of the interview, that the discussion is non-attributable and that data and identifying will be stored and destroyed securely (again using materials already provided to them).

Explain that you have a set of topics that you'd like talk through with them and that the discussion should take around 45minutes to an hour.

Check / Confirm against the MI:

- How many projects/competitions applied for
- How many applications were successful
- No of expected installations in each project
- Technologies in each project
- No of installations implemented

3.5.3. Initial Engagement with RHPP2

This first section is about how the RSL first heard about RHPP2 and learnt more about it.

- When and how did you first hear about RHPP2?
 - *Probe:* Source of information, content, when
- What next steps did you take to find out more?
- *Probe:* EST, DECC, technology providers, websites, telephone line
 - Why were you interested in RHPP?
 - *Probe:* Strategic fit/organisational priority
 - *Probe:* Interest in renewable heat technology
 - *Probe:* Interest in environmental sustainability
 - *Probe:* Interest in benefits for housing stock – fit with refurbishment (retrofit) plans and planning
 - *Probe:* Interest in reduced energy consumption – environmental concerns; cost concerns
 - *Probe:* Interest in tenant benefits/broader welfare – across the issues above
 - *Probe:* aware of DECC funding and support previously, so interested to find out more generally
 - Did you attend DECC/EST seminars? Can you tell me about that?
 - *Probe:* How became aware
 - *Probe:* Why attended – expectations and motivations
 - *Probe:* Where it was, who went,
 - *Probe:* Views on the content and RSL presentations
 - *Probe:* Views on the seminar overall
 - Were you aware of renewable heat technology prior to hearing about RHPP2?
 - *Probe:* Strategic commitment
 - *Probe:* History of awareness (for how long known, how became aware)
 - *Probe:* Extent/depth of knowledge

3.5.4. Initial Research and Development

This second section is about the initial activity to inform and take a decision on making an application to RHPP2.

- Following the workshop (or initial activities), what were the initial activities you undertook to decide to scope an RHPP project?
- Organisationally – what was the process required and who was involved in the decision to move forward to scope an application?
 - Meetings within the RSL – who needs to be involved?
 - RSL business strategy and planning – what needs to be considered (refurbishment programmes, financial planning)?

- Meetings with other RSLs/contact with installer/ manufacturer?
- EST engagement and support?
- Any decisions on scoping work required?
- How was a decision reached, and by whom? (Was it unanimous, contentious, key decision makers)
- What were the identified potential advantages and disadvantages
- How was a decision reached, and by whom? (Was it unanimous, contentious, key decision makers)
- What were the identified potential advantages and disadvantages?
- To undertake initial scoping – what was required to explore the scheme in order to identify and consider suitability and eligibility? (The focus here is on any initial activities that supported the organisational decision to proceed, not the detailed ones to support the application. Only explore these in so far as they were undertaken at this stage).
- Information sources, how they were accessed, issues with them/understanding or utilising them
- Meetings and tenant engagement – How much involvement and on what issues, what methods used? What were tenant concerns? How were these addressed?
- Mapping of need/opportunity – were the different areas of assessment explicitly considered (e.g. cost savings) or was it a more ‘in principle’ exploration?
- How different technologies were identified and considered – their suitability, costs and benefits?
- How costs were assessed; how was finance considered and identified?
- Planning regulations and considerations?
- Was the RHI a factor – were they aware of it, how did it influence if at all?
- What links were made with technology manufacturers or installers?
- Did you decide to proceed or not proceed?
- Where was the decision taken and by whom? (level, sign-offs required, any particular person driving the decision?)
- What were the main drivers of the decision to proceed?
- Business considerations – additional resources for planned refurbishments, incentive to bring forward planned refurbishments, financial planning cycles and how RHPP fitted, wish to move to greener credentials (and why – business incentives, strategic fit), planning for introduction of RHI?
- Social considerations – benefits to tenants (what and why), wish to move to greener credentials (and why – social incentives)?

If they dropped out at this stage:

- When did the RSL decide not to go any further, and why?
- Overall level of work the application required – organisation lacked resources to develop proposal
- Timings were too tight (and which, e.g. to engage installers, engage tenants, work through financial planning).

- Fit of RHPP with financial planning/stock management planning
- Different elements of the application and the work required for each of these
- Findings or issues emerging from tenant engagement (or lack of it/challenges with it)
- Understandings and considerations of the technology – suitability for selected site(s)
- Understandings and considerations of costs and cost savings
- Availability of installers/technology providers
- Financial considerations - available funding; expected benefits
- Other measures (energy efficiency, renewable electricity) more attractive
- What were the crucial factors?
- Although you didn't take the application forward, were there any benefits from being involved in the process itself?
 - Increased or aspects of tenant engagement?
 - Raised awareness of environmental issues (RSL/tenants)?
 - Raised awareness of renewable heat technologies (RSL/tenants)?
 - Raised awareness of household energy use (RSL/tenants)?
 - Will any benefits be sustained (RSL/tenants)?
 - Now better plugged into new offers of grants, government incentive schemes, etc. (email lists, networks, specific sources of information)?
- Now that your involvement with the scheme has finished, what are your views on renewable heat technologies? (*Explore motivations for uptake and identify enablers*)
 - Views on performance of renewable heating technology
 - Views on cost
 - Views on cost savings
 - Views on finance
 - Views on planning requirements
 - Views on the installer/provider market
 - Any intention to explore in the future – likelihood of installing renewable heating technologies in the future
- Are you intending to install renewable heat technologies outside of RHPP2?
 - When?
 - Why – why not RHPP?
 - Through what means?
 - Through other financing? If they are/ have installed renewable heating technology outside of RHPP explore reasons why:

- opting for a renewable heating technology that is not accredited under RHPP
- cheaper to install outside of scheme
- ambition was greater than the max value available under the scheme
- timescales for installation to payment
- Have they applied to the RHPP2 Extension fast track – why/why not
- Is there anything that you would like to add – that you think is important but hasn't been covered?
- Have you got any questions for me?

Thank you for your time

If you have any questions after this interview or would like to speak to me or

Someone else about the evaluation, contact details are provided on the information sheet.

3.5.5. Project Grant Application

This section is about the work done to develop an RHPP grant application. This could be quite a complicated discussion.

- Once the decision had been taken to proceed with developing an application, can you talk me through the steps you took? (*Tailor to the detail provided in their application documentation.*)
- Sources of information – what was accessed, what was required, what was easy and what was difficult to access and make sense of?
- Tenant engagement
 - how was this undertaken – standalone events, newsletters, engagement officers, bespoke or bolt-on activities? Materials?
 - What were tenants' views – enthusiasm, and why; concerns, and which?
 - What was required to engage tenants effectively?
- Work with provider(s)/accredited installer – how were they identified, how were they engaged, how was agreement reached with a supplier and installer?
- Identifying and addressing legislative/planning issues
- Organisational processes – work to map RHPP into business planning
- Decision on the ambition of the project – number of installations, place of project within any wider activities (e.g. programmes of refurbishment).
- What were the main issues in the development of a technical specification and the decision about the amount of money to apply for? (*Look for anything that was considered easier than expected or particularly difficult*)
- What technology or technologies were included, and why (key drivers)?
 - Confirm detail of what was decided upon
 - Suitability of housing stock
 - Scale of potential project – place of scheme within wider programmes; level of ambition
 - Tenant characteristics (including vulnerability / propensity for fuel poverty)

- Tenants' views
- Considerations of cost
- Planning permission considerations
- Anticipated ease of installation/extent of disruption
- Anticipated operating characteristics (noise, ease of use)
- Anticipated performance
- How easy was it to find suitable installers?
- Did you have options for installers with the necessary skills/availability/accreditation? (i.e. were you able to obtain several different competitive quotes)
- What was the level of discount and arrangements with suppliers – what were the benefits of bulk-buying (price, leverage)
- Where more than one technology was included within a single project, how was this decided upon and what were the consequences of this across the issues here (working with installers, engaging tenants, etc.)
- And demonstrating 'Deliverability and Delivery Innovation' – tenant engagement?
 - How was tenant engagement undertaken?
 - What were drivers and barriers to tenant engagement?
- Considerations in deciding level of grant application (working from the topics prompted for above)
- Challenges and solutions
- When was the decision *to submit/not to submit* made with the application and what were the crucial factors?
 - Was it near to submission date – were any elements delayed and why?
 - Organisational processes – what needs to be in place for a decision to be reached? What was a driver or a barrier to an organisational decision to submit
 - Were there any outstanding issues?
- Overall, was the application itself straightforward or difficult to complete?
 - Any particular areas or requirements?
 - Any assistance accessed?
 - Did you use the on-line tools provided on the EST website?
- How was the project financed by the RSL?
 - What were the financial considerations – budgeting and budget cycles, governance and decision making?
 - What were the sources of any finance (reserves, borrowing, forecasted revenue)?
 - For what proportion of projects costs was your application for an RHPP grant
 - What other sources of funding were explored/ secured
- Submitting the final application
 - Was it difficult to meet the deadline?
 - Sources of support accessed.
- What worked well and what was difficult about the application process?

- Views on the application process overall, the standard of evidence required.

If no proceed:

- Use questions at foot of section 3.5.4 to explore legacy from involvement.

3.5.6. Project Implementation

This section is about the project that was delivered by the RSL once RHPP grant funding was awarded. This could be quite a complicated discussion.

- How much funding did you secure and for how many installations? (confirm against MI)
 - Was it the full amount that you had applied for?
 - Were you told about the decision at the time you expected to be?
- Were there any conditions to the funding?
 - How many installations have taken place (with reference to the MI we hold)
 - How does this relate to the planned rate/progress?

We're interested in identifying key drivers or barriers to progress across this section.

- Can you talk me through each of these elements and tell me about what was involved, what worked well and what was difficult (*explore how things were overcome*) in implementation?
 - Go through the process chronologically. There is likely to be some moving around. Establish the timeline.
 - Explore:
 - If the grant was a sufficient contribution to the project costs for the activities required
 - How the project was 'sold' to tenants and if agreement from them was required.
 - To what extent were the installations imposed or negotiated?
 - How did any tenant engagement build on that from earlier stages, and why?
 - How did tenant engagement or views differ from earlier rounds, and why?
 - If there were particular groups of tenants or those with particular characteristics that were difficult to engage and difficult to persuade? (e.g. types of housing, types of household/tenant).
 - What was required to engage tenants? What information did they require?
- For the technology/ies included in the project, what have been the drivers and barriers to implementation of installations?
- What were the arrangements with suppliers and installers – were there any issues with them post-award? Did 'bulk buying' bring tangible advantages?

- Did you use more than one installer? What other trades people did you work with to complete the installation. Did you arrange/ mobilise these other trades persons or was it arranged by installer as part of a one-stop-shop service
- Did you structure the installation contract in stages? (e.g. only when happy with building 1 did you continue with building 2),
- If linked to wider programmes of refurbishment - did you undertake other works at the same time of the property so that all the disruptions happened at once?
- What were the experiences of installation, and what would improve it?
- How were installations completed – with RSL support, with tenant involvement? How were arrangements for installations made and what helped and hindered this?
- How was training provided on the use of the technology, and to whom (RSL leads, tenants, groups)?
- Was the training sufficient?
- What was the experience of installation, from the perspective of the RSL?
- What has been the feedback from tenants on the process of installation?
- What worked well with the implementation of your project?
- Have you had to adapt your project to ensure it is implemented (how and why)?
- What were the key drivers or barriers to success?

3.5.7. If the RSL was successful in its application but did not achieve any installations:

- Why wasn't the project implemented?
- Was there an attempt to implement?
- Was a decision taken not to proceed?
 - Explore the reasons why – internal/organisational concerns (budgeting, planning), housing stock (suitability), legal/other?
 - Barriers and the efforts made to address them
 - Problems with installers?
 - Clarify the different aspects and their combination – building on the conversation so far
- What would have made the difference and led to the project being implemented?

Use questions at foot of section 3.5.4 to explore legacy from involvement.

3.5.8. Use of Renewable Heat Technology

This section is about the experiences of using the renewable heat technology or technologies.

- We'd like to know about tenant experiences of the technology/ies.
- How has tenant feedback been gathered? (formal and informal routes)

- What has tenant feedback been about their experience the technology or technologies once installed? (If more than one, consider them in turn. Tailor questions to features of technology. Use technologies crib sheet).
- Problems following initial installation when first used?
- Any repairs required? How quickly were repairs dealt with? What SLAs in place? What is the impact on tenants (especially vulnerable tenants)?
- Issues with noise?
- Issues with knowledge of how to use?
- Experiences in contrast to expectations (ease of use, performance)?
- Experiences relating to different types of housing stock?
- What has been required to address these issues?
 - Have tenants required support? What has been required? How has this been provided? (ad hoc, from existing sources, new sources)
 - What has been the scale of need and of resource required for the response?
 - Have issues been reported to installers/manufacturers?
 - Have any large scale actions been required (whole programme/whole tenant)
- How do people view the new systems in contrast to their previous one?
- How many properties have retained their previous heating systems? Why? Are tenants still able to use their old heating systems
- Have the new systems met expectations? Have they exceeded them?
- What are the benefits of the technology
 - For you as an RSL?
 - Cost/ savings
 - Meeting LA targets
 - Reputational/presentational
 - For your tenants?
 - Explore cost savings
 - Household expenditure
 - Fuel poverty
 - Health and wellbeing – comfort levels
 - Environmental
- How do tenant benefits create benefits for the RSL? What is the relationship between tenant benefits and RSL benefits (one way, two way)?
- What has been the impact on households' use of fuel and heating? (Any data or anecdotal? Actual or perceived?)
 - Has the project reduced household expenditure on fuel?
 - Has it enabled people to keep their home warmer?
 - Any differences of experience between different groups?

- Have you collected any data about tenant experience of using the technology – and its benefits (spend, comfort, etc.)?
 - What has been collected?
 - How has it been collected, and when?
 - For what purpose?
 - What does it tell us?
 - Is it available to the evaluation team?
- What are the expectations of the systems looking ahead?
 - Have any teething problems been addressed?
 - Has the technology only just been installed and is it too early to answer many of the questions above?
 - Is the technology still being installed so that there's a mixed picture of usage and views?
- Is the RSL participating in DECC's metering data monitoring?
 - What do they know about it?
 - What are they participating in?
 - What are their views of appropriateness of the requirement(s) – straightforward, onerous, necessary, unnecessary?

3.5.9. Final Reflections

- What are your views on the RHPP2 RSL Scheme as a way of promoting renewable heat technology across your target area/target groups?
 - If they participated in different phases, how did they compare?
 - Reasons for success?
 - Barriers and challenges, and how overcome?
 - Is there new interest amongst non-participating tenants as their neighbours use theirs?
 - Have other tenants asked for their heating to be changed after seeing the experiences of neighbours, friends, etc.?
 - Have you tried to “show home” any properties to other tenants to improve awareness? What was the outcome?
 - Did you find the subsequent competitions easier to participate in – (established mechanisms for tenant engagement, understanding requirements of application process, installers contacts, discounts)
- Are you (as an RSL) considering investing installing renewable heating technologies in any other of your housing stock?
 - How large is your housing stock? (Check from MI)
 - What is the scale of any planned or installations?

- What are the considerations for any future installations (organisational processes, nature of housing stock)?
- What advice would you give to other RSLs thinking about installing renewable heating technologies in their stock?
- What is your view of the RHPP scheme for RSLs?
 - What worked well?
 - What worked less well?
- Have there been any wider benefits from being involved RHPP2 (for the RSL, for tenants)?
 - Were networks developed or strengthened?
 - Raised awareness of environmental issues?
 - Raised awareness of household energy use?
 - Will any benefits be sustained?
- Now that the project is complete/almost complete/underway, what are your views on renewable heat technologies?
 - Views on cost
 - Views on cost savings
 - Views on finance
 - Any intention to explore as an RSL in the future
 - Have they applied to the RHPP2 Extension Fast track competition? Why? Why not?
- Would you participate in any future DECC scheme for RSLs?
 - Why, why not?
 - What would promote or hinder participation?
- Is there anything that you would like to add – that you think is important but hasn't been covered?
- Have you got any questions for me?

3.6. Interviews Non-Participating RSL Topic Guide

3.6.1. Background

This topic guide is for interviews with leads from 'Registered Social Landlords' (RSLs) who participated in the Renewable Heat Premium Payment (RHPP) scheme phase 1 but not in phase 2. We are interested in this group because we would like to know why RSLs did not participate in RHPP2. This sample has been agreed with DECC as a way to identify and explore the views of RSLs who did not participate.

The sample is split between those who submitted an application to RHPP1 but withdrew subsequent to award and those who submitted an unsuccessful application.

This group did not submit an application to RHPP2. We would like to explore why they did not, as they had already engaged with the policy area. But they may have prepared an application but not submitted it – so there are questions here to explore that.

Remember: the interview is a *conversation with a purpose* and the topic guide must be used to guide the discussion. The discussion may not be linear so make sure you are familiar with the topic guide overall.

3.6.2. Introduction

Introduce yourself.

Remind the participant of the purpose of the interview – using the materials already provided to the RSL in negotiating their participation.

Thank the participant for giving their time.

Ask for permission to record the interview. Remind the participant of the confidential nature of the interview, that the discussion is non-attributable and that identifying data and will be stored and destroyed securely (again using materials already provided to them).

Explain that you have a set of topics that you'd like talk through with them and that the discussion should take around 45minutes to an hour.

Introduce the topics that you would like to explore with them:

- Their experience of applying to RHPP1;
- Their knowledge of RHPP2, whether or not they considered applying and if they began to prepare an application;
- Their views of renewable heat technology, RHPP and whether they would consider applying in the future.

3.6.3. Engagement with RHPP

This first section is about the RSLs engagement with RHPP.

- We know that you submitted a proposal to the Renewable Heat Premium Payment scheme 1 (currently in the second stage) (RHPP1, 2011-2012) which was successful but that didn't implement the project.
- Confirm whether unsuccessful application or withdrew after award
- I'd like to ask you a few questions about RHPP and the proposal you submitted.
- When and how did you first hear about RHPP?
 - *Probe:* Source of information, content, when
- Why were you interested in RHPP?
 - *Probe:* Strategic fit/organisational priority
 - *Probe:* Interest in renewable heat technology
 - *Probe:* Interest in environmental sustainability
 - *Probe:* Interest in benefits for housing stock – fit with refurbishment (retrofit) plans and planning

- *Probe:* Interest in reduced energy consumption – environmental concerns; cost concerns
- *Probe:* Interest in tenant benefits/broader welfare – across the issues above
- *Probe:* aware of DECC funding and support previously, so interested to find out more generally
- Were you aware of renewable heat technology prior to hearing about RHPP?
 - *Probe:* Strategic commitment
 - *Probe:* History of awareness (for how long known, how became aware)
 - *Probe:* Extent/depth of knowledge
- What was covered by your proposal to RHPP – what was the design?
 - *Probe:* Technology
 - *Probe:* Properties
 - *Probe:* Phasing?
 - *Probe:* Scale and ambition
- And thinking back to the application process, was that fairly straightforward or were there any particular issues for you?
 - *Probe:* Easy or difficult to complete
 - *Probe:* Time consuming
 - *Probe:* Required levels of expertise
 - *Probe:* Availability of information on tech
 - *Probe:* Lack of time to complete

3.6.4. Unsuccessful Applications

These questions are for RSLs whose applications were not successful. **If they were successful but withdrew from the scheme after award of funding, please move to section 2B.**

- Why was your application unsuccessful?
 - What were the reasons?
 - Relating to housing stock?
 - Relating to tenants and tenant engagement?
 - Relating to technology?
 - Relating to the planned implementation – scale, timing?
 - Relating to the RSL as an organisation – funds, missing information?
 - Issues with the way parts of the application were completed?
 - Any mistakes made?
- Can they remember why?
- What feedback was provided?
- Were they happy with the feedback that was provided?

3.6.5. Withdrew Following Successful Application

These questions are for RSLs whose applications were successful but they subsequently withdrew.

- After you were successful with your application, why didn't you implement your project?
 - Was there an attempt to implement?
 - What happened?
 - What were the barriers?
 - How much progress was made?
 - Issues with the supplier or installer?
 - What steps were taken to address?
 - Concerns about the technology
 - Cost
 - Reliability
 - Warranties
 - Problems with tenant engagement
 - Lack of take-up of installation
 - Tenant concerns expressed that weren't previously
 - Problems achieving tenant engagement
 - Problems with planned implementation
 - Organisational concerns (lack of buy-in, change of internal or external context)
 - Practical barriers – changes to refurbishment planning; suitability of housing stock
 - Financial barriers – lack of planned funds being available
 - Scale of ambition – too much to achieve in the time
 - Issues with planning – necessary permissions not gained
- Was there a particular reason or particular combination?
- What would have made the difference and led to the project being implemented?

3.6.6. Considering RHPP2

These questions are for all RSLs.

- Did you hear about RHPP2? DECC
 - How?
- Did you consider applying to RHPP2?
 - YES – CONTINUE BELOW
 - NO – MOVE TO 3A
- If YES:
 - How far towards submitting an application did they get?
 - Engagement with events
 - Information gathered
 - Progress with application (close to submission; not past thinking about it)

- Why did they want to apply?
 - Same interests as led to RHPP1 application?
 - Features of RHPP2 seen to be different than RHPP1?
 - Different housing stock, different scale, different technology?
- What were they considering applying for (scale of ambition, technology, housing stock)?
- Overall, how did the RHPP2 process compare to RHPP1?
 - More work?
 - Less work?
 - Easier than expected?
 - More difficult than expected?
- Can you talk me through the steps that you took in preparing your RHPP2 application?
 - **Sources of information** – what was accessed, what was required, what was easy and what was difficult to access and make sense of?
 - Tenant engagement
 - how was this undertaken – standalone events, newsletters, engagement officers, bespoke or bolt-on activities? Materials?
 - What were tenants' views – enthusiasm, and why; concerns, and which?
 - What was required to engage tenants effectively?
 - **Work with provider(s)/accredited installer** – how were they identified, how were they engaged, how was agreement reached with a supplier and installer?
 - **Identifying and addressing legislative/planning issues**
 - **Organisational processes** – work to map RHPP into business planning
 - **Decision on the ambition of the project** – number of installations, place of project within any wider activities (e.g. programmes of refurbishment).
- What were the main issues in the development of a technical specification and the decision about the amount of money to apply for? (*Look for anything that was considered easier than expected or particularly difficult*)
- What technology or technologies were included, and why (key drivers)?
 - Confirm detail of what was decided upon
 - Suitability of housing stock
 - Scale of potential project – place of scheme within wider programmes; level of ambition
 - Tenant characteristics (including vulnerability / propensity for fuel poverty)
 - Tenants' views
 - Considerations of cost
 - Planning permission considerations
 - Anticipated ease of installation/extent of disruption
 - Anticipated operating characteristics (noise, ease of use)
 - Anticipated performance
 - How easy was it to find suitable installers?

- Did you have options for installers with the necessary skills/availability/accreditation? (i.e. were you able to obtain several different competitive quotes)
- What was the level of discount and arrangements with suppliers – what were the benefits of bulk-buying (price, leverage)
- Where more than one technology was included within a single project, how was this decided upon and what were the consequences of this across the issues here (working with installers, engaging tenants, etc.)
- And demonstrating ‘Deliverability and Delivery Innovation’ – tenant engagement?
 - How was tenant engagement undertaken?
 - What were drivers and barriers to tenant engagement?
- Considerations in deciding level of grant application (working from the topics prompted for above)
- Challenges and solutions
- When was the decision *not to submit* made and what were the crucial factors?
- Was it near to submission date – were any elements delayed and why?
- Organisational processes – what needs to be in place for a decision to be reached? What was a driver or a barrier to an organisational decision to submit
- Were there any outstanding issues?
- Overall, was the application itself straightforward or difficult to complete?
 - Any particular areas or requirements?
 - Any assistance accessed?
 - Did you use the on-line tools provided on the EST website?
- How was the project going to be financed by the RSL?
 - What were the financial considerations – budgeting and budget cycles, governance and decision making?
 - What were the sources of any finance (reserves, borrowing, forecasted revenue)?
 - For what proportion of projects costs was your application for an RHPP grant
 - What other sources of funding were explored/ secured
- Submitting the final application
 - Was it difficult to meet the deadline?
 - Sources of support accessed.
- What worked well and what was difficult about the application process?
 - Views on the application process overall, the standard of evidence required.
- When did the RSL decide not to go any further, and why?
 - Overall level of work the application required – organisation lacked resources to develop proposal
- Timings were too tight (and which, e.g. to engage installers, engage tenants, work through financial planning).

- Fit of RHPP with financial planning/stock management planning
- Different elements of the application and the work required for each of these
- Findings or issues emerging from tenant engagement (or lack of it/challenges with it)
- Understandings and considerations of the technology – suitability for selected site(s)
- Understandings and considerations of costs and cost savings
- Availability of installers/technology providers
- Financial considerations - available funding; expected benefits
- Other measures (energy efficiency, renewable electricity) more attractive
- What were the crucial factors?
- Although you didn't take the application forward, were there any benefits from being involved in the process itself?
 - Increased or aspects of tenant engagement?
 - Raised awareness of environmental issues (RSL/tenants)?
 - Raised awareness of renewable heat technologies (RSL/tenants)?
 - Raised awareness of household energy use (RSL/tenants)?
 - Will any benefits be sustained (RSL/tenants)?
 - Now better plugged into new offers of grants, government incentive schemes, etc. (email lists, networks, specific sources of information)?
- Now that your involvement with the scheme has finished, what are your views on renewable heat technologies? (*Explore motivations for uptake and identify enablers*)
 - Views on performance of renewable heating technology
 - Views on cost
 - Views on cost savings
 - Views on finance
 - Views on planning requirements
 - Views on the installer/provider market
 - Any intention to explore in the future – likelihood of installing renewable heating technologies in the future
- Have you installed or do you plan to install renewable heat technologies outside of RHPP2?
 - When?
 - Why – why not RHPP?
 - Through what means?
 - Through other financing? If they are/ have installed renewable heating technology outside of RHPP explore reasons why:

- opting for a renewable heating technology that is not accredited under RHPP
- cheaper to install outside of scheme
- ambition was greater than the max value available under the scheme
- timescales for installation to payment

3.6.7. Did Not Consider Applying

- Can you tell me why you decided not to apply to RHPP2?
 - Explore whether the causes relate to their experience of RHPP1 or whether they're stand alone and in relation to RHT, their position as an RSL, their housing stock or other factors.
 - Views on RHPP1
 - As discussed above – clarify and confirm
 - Other
 - Views on performance of renewable heating technology
 - Views on cost
 - Views on cost savings
 - Views on finance
 - Views on planning requirements
 - Views on the installer/provider market
 - Ambition was greater than the max value available under the scheme
- Have you installed or do you plan to install renewable heat technologies outside of RHPP2?
 - When?
 - Why – why not RHPP?
 - Through what means?
 - Through other financing? If they are/ have installed renewable heating technology outside of RHPP explore reasons why:
 - opting for a renewable heating technology that is not accredited under RHPP
 - cheaper to install outside of scheme
 - ambition was greater than the max value available under the scheme
 - timescales for installation to payment

3.6.8. Final Reflections

- Are you (as an RSL) considering investing installing renewable heating technologies in any other of your housing stock?
- Make reference to their motivations for engaging with RHPP1, explored in section 1.
- How large is your housing stock?
- What is the scale of any planned or installations?

- What are the considerations for any future installations (organisational processes, nature of housing stock)?
- What advice would you give to other RSLs thinking about installing renewable heating technologies in their stock?
- What is your view of the RHPP scheme for RSLs?
 - What worked well?
 - What worked less well?
- Have there been any wider benefits from being involved RHPP1 or 2 (for the RSL, for tenants)?
 - Were networks developed or strengthened?
 - Raised awareness of environmental issues?
 - Raised awareness of household energy use?
 - Will any benefits be sustained?
- Would you participate in any future DECC scheme for RSLs?
 - Why, why not?
 - What would promote or hinder participation?
- Is there anything that you would like to add – that you think is important but hasn't been covered?
- Have you got any questions for me?

THANK YOU FOR YOUR TIME

3.7. Tenant Qualitative Interviews Topic Guide

RHPP2 EVALUATION – RSL TENANT INTERVIEWS, TOPIC GUIDE

3.7.1. Introduction

Introduce yourself. Remind the participant of the purpose of the interview. Provide the participant with a copy of the information sheet.

Just to remind you, I work for an independent research organisation called ICF. We are carrying out research on behalf of the Department of Energy and Climate Change, the Government department responsible for household energy policy and renewable heat to find out more about the renewable heat technology that was installed in your home by your landlord. Your landlord received a grant from the Government to install this technology.

Thank you again for completing our questionnaire. Through this interview, we want to understand a bit more detail about the process of installing the technology and your experience with it. The information you provide is very important because it will help the Government understand how people are using these technologies.

Explain that there is a voucher for them as a “thank you” for taking part, which you will give at the end.

Explain the importance of being able to say what you think, there are no right or wrong answers and please be honest.

Explain that the interview is confidential. What we hear from the interviews will be used to write a report about people’s experience with the RHPP2. However, we will not identify any individuals or disclose personal details of any individuals that take part. This means that we will not mention your name in our report or anywhere else. We will not tell your landlord or anyone else, other than the research team at ICF, what you tell me.

If you agree, we would like to audio-record this interview. This is for the purpose of accurately recording what you tell us. Only ICF researchers working on this project will have access to the recording, and we will store it securely.

Provide opportunity for interviewee to ask any questions.

Seek permission to audio-record. Turn audio-recorder on. Once switched on, confirm that the audio-recorder is on for the benefit of the tape.

Note to Interviewers, before the interview ensure that you:

- **Review interviewee questionnaire responses. Use responses to inform questioning and prompts throughout interview.**
- **Review landlord interview write-up. Use this to inform prompts and questioning.**

Bear in mind that when we refer to ‘landlord’ in the topic guide, we include anyone who may work for the landlord (some RSLs, for example, have appointed ‘energy managers’).

Householder may offer to show you the renewable technology before you start. Use observations to inform questioning in later sections. As appropriate you can ask to see:

- **Heating device itself: heat pump (air / ground), biomass boiler, solar thermal panels**
- **Radiators, if new (heat pumps, biomass)**
- **Water storage, if new (solar thermal)**
- **Fuel and fuel storage (biomass)**
- **Controls panels & controlling devices**
- **Additional heating systems**

3.7.2. Introduction – Household Context

- 1. Please start by telling me a little bit about your household and your previous heating system.**

Prompt and confirm the following:

- Who lives in the property (number of residents / ages / working/non-working)
- How long lived in the property?

- How many bedrooms?
- Previous heating system (what state was it in? how old/new? Satisfaction/views? Did they use supplementary heating systems – which, when and why?)
- Did the previous heating system provide space and/ or hot water heating?
- When [month/year] was the [name of renewable technology] installed?
- Does the [name of renewable technology] provided space and/or hot water heating? (confirm from questionnaire response)

3.7.3. Before the installation

2. When you first heard that you were going to get a [name of technology], what were your first thoughts?

Prompt for and explore:

- Had you heard of the technology?
- Concerns / unknowns
- Wanted to keep old system. Why?
- Wanted to change to a different heating system (including the one installed). What technology (renewable / not)? What were the reasons for wanting this technology?

3. What happened next? How did you find out more about the [name of technology]?

Prompt for and explore (use questionnaire responses):

- Landlord engagement – how did your landlord get in touch (e.g. meetings, visits, demonstrations, letters)? What did you think of the information provided?
- Installer engagement – did the installer get in touch?
- Tenant pro-active engagement – How? Were your questions answered?

4. To prepare for having the [name of technology] installed,

a) what, if anything, did you expect your landlord or their representative to do? What actually happened?

Prompt for and explore:

- Process (timings / frequency of contact / any uncertainty?)
- Type of engagement (e.g. meetings / hands-on demonstration of system etc.)
- Quality of engagement (could landlord or representative answer questions to their satisfaction?)
- Information provided (did they want more? what type?)
- Any issues with management of installer pre-engagement?

b) what, if anything, did you expect the installer to do ? What actually happened?

Prompt for and explore:

- Process (timings / frequency of contact / any uncertainty?)

- Type of engagement (e.g. meetings / hands-on demonstration of system etc.)
- Quality of engagement (could installer provide answers to questions to their satisfaction?)
- Information provided (did they want more? what type?)

Ask Q5 or Q6 or Q7.

5. You told us you had a choice about getting the [name of technology] installed. [Confirm]

- How were you given the choice, e.g. could you choose not to have it and/or choose a different technology?
- Why did you want / did not want the [name of technology] installed?

6. You told us you didn't have a choice about getting the [name of technology] installed. [Confirm]

Prompt for and explore:

- Whether tenant made a request for a different system / enquired about choice.
- Would the tenant have wanted a choice?
- What would the tenant have chosen?
- Why did you want / did not want the [name of technology] installed?

7. You told us you weren't sure whether you had a choice about getting the [name of technology] installed.

- Is this correct?
- Would you have wanted a choice?
- What would you have chosen? Why?

3.7.4. The Installation Process

8. You've told us you found the installation process [easy / difficult]. What worked well? What worked less well? Why was this?

Prompt for and explore:

- Narrative of what happened
- Timing
- Mess/disruption
- Conduct of installer staff and quality of work
- Information / guidance provided

9. What, if anything, could have helped to make the installation easier / less difficult? Who do you think would be best placed to do this?

Prompt for and explore:

- What would have been helpful? (e.g. different management of installer's work, options to reduce disruption, such as alternative heating?).
- Who could have done something differently?

10.[If other work done at the home at the same time as the installation.]

You told us that you had X [refer to other work done, from questionnaire] work done at your home at the same time as installing the [name of technology].

a) Please tell me about the works that your landlord did at the landlord's own cost?

- Did your landlord explain why they wanted to do this?
- What reason/explanation did they give you?

b) Please tell me about any additional work that you (your household) did around the time of this installation.

- What did you do?
- Why did you do this? Explore:
 - Whether someone else might/could have done it
 - Was it necessary? Or was it something you wanted to do anyway? Were you planning to make changes to your house anyway (and used this as an opportunity)? Explore: was it optional or a necessity.

3.7.5. Using the [name of technology]

11.Once your [name of renewable heating technology] had been installed, were you given a personal demonstration of how to operate/ use it? Did someone show you how to use the system? What happened?

Prompt for and explore:

- Who? Landlord / installer / other (who)?
- How? Demonstration / setting / manual / helpline?
- How satisfied? How helpful was the support you received?

If they didn't get a demo: Why not? Did they refuse? Did they request a demo?

12.How do the controls differ from the ones on your previous heating system?

Check whether the tenant: uses the controls; has been advised not to use them (**probe who, why, explanation given by landlord / installed**); or has decided not to use them (**probe why/ explanation given**). Follow-up with the following prompts, as appropriate. [Refer to illustration of controls.]

Prompt for and explore (as relevant):

- How confident do you feel with setting the [name of Renewable Heat Technology] to the temperature that you want? (Use of thermostat on device / remote controlling

device) If you felt too hot or too cold now, would you be able to change the settings to get the heat you wanted?

- How confident do you feel with setting the time (timer) of your [name of technology] ?
- Easier or more difficult to use?
- **[Important to ask this.]** What makes them easier or more difficult – e.g. more or less complex; the newness of the new system; ‘not used to’ (unfamiliar with) new types of controls.

13. Have you asked for any help relating to the use of your [insert renewable heating technology type] or understanding the controls since then?

Prompt for and explore:

- What help did you ask for?
- Who did you ask (landlord / installer / other - who)?
- Did you receive the help? Did it help you with what you wanted to do / know? **If not received or not helpful**, what more / different help would you have been helpful / useful?
- Is it easier to use now compared to when it was installed. Why / what happened?
- **[Important to ask this if relevant / not using / not satisfied with controls]** Why did they **not ask** for help?

14. You told us in your questionnaire that you find your [name of technology] [more easy/difficult - refer to questionnaire] to operate than your previous heating system [ideally you will spell out what this was from the opening sections/ questionnaire]. How or What makes your [name of renewable heating technology] easier/ more difficult to operate than your [insert name of previous heating system]

- Is there anything that could be made easier? Can anything be improved? If so, what?

15. Following the installation of your [insert name of renewable heating technology] have you had any contact, about it, with your landlord, installer or manufacturer (apart from our questionnaire)?

Prompt for and explore:

- Who contacted who? Did you contact them or did they contact you? If the latter what was the purpose of their contact (e.g. courtesy call, maintenance, in response to issued raised by others in your housing block, community, etc.)
- What happened?
- Did they change anything?
- Did they provide you with additional help / support?

16. Did you get any other help or advice related to your energy use?

Prompt for: help with energy tariff change / fuel; advice on saving energy; insulation check.

17. Other than controls and performance (covered later), how satisfied are you [name of technology? Any issues? Is it different to what you expected?

Prompt for and explore according to technology:

a) Heat Pump

- Appearance / size of heat pump
- Size of radiators
- Noise (have neighbours complained?)

b) Solar Thermal

- [If new] Hot water cylinder (size / location / appearance)
- Appearance of roof panels

c) Biomass Boiler

- Size / space required for boiler and fuel storage.
- Any issues with feeding / loading fuel and cleaning boiler (check if they do it themselves).
- Any issues with keeping fuel safe and dry (check if they do it themselves).
- Sourcing fuel: how do they do this? how easy / difficult? Any discounts?
- Did the landlord offer any help / advice / discounts for looking after the biomass boiler and sourcing fuel?

3.7.6. Performance of the technology

18. You've said in your questionnaire that you are [very/ fairly – satisfied/ dissatisfied] with the performance of your technology – *remind respondent of response*. We'd like to talk a little about this. Please can you tell us why you were...What are the reasons for your level of satisfaction (probe both positives and negatives)? [Probe for answers about the tenant's *own* experience with the technology / distinguish from neighbours' views / hearsay.]

Prompt for and explore:

- Is the technology performing as expected/ better/ worse? Why?
- What do you like about the performance?
- What are the issues or problems with the performance? (if advice on how to operate the RHT was needed, why?)
- Any issues with the new system overall?

19. Has your satisfaction with your [insert renewable heating technology type] changed over time, as you've used it? How has this changed [improved, stayed the same or got worse]? Why is this?

Prompt for and explore (as relevant to technology):

- How happy are you with the temperature of room/space heating?
- How you happy with the time it takes to heat your rooms?
- Are you happy with the hot water temperature (prompt for 'how happy')?
- Are you happy with the time it takes to heat your water (prompt for 'how happy')?
- Performance over Summer / Winter (as relevant to how system operating).
- Changes in personal circumstances (e.g. retirement / change in work patterns / baby, etc.).
- Changes in home energy efficiency (insulation) or household requirements for energy.

20. How has the [name of technology] performed?

Prompt for and explore:

- Have there been any faults? What were the faults – are they to do with the technology/kit or with installation, or something else? When did they occur (soon after installation of later down the line)
- How did you deal with the fault(s)? Have the faults and (if any) complaints been resolved, and how? How many call outs? How satisfied were you with the repairs process / service?
- To what extent does this affect your satisfaction?
- Explore (if tenant knows): landlord repair service / installer team / manufacturer / independent trader at own expense.
- If used landlord repair service: how satisfied? Is this the same process as other repairs / previous heating system? Do you feel your landlord's team is adequately prepared to deal with faults with renewable heat system [did you feel they knew what they were doing]?

3.7.7. Influence of the new system on household heating and hot water use

21. What, if any, changes have you made following the installation of your [name of renewable heat technology]? Why have you made / felt the need to make changes?

Have you changed the way you heat your home as a result of your [insert renewable heating technology type]? [Only relevant to ask of those for whom the renewable heating technology provides heating or heating and hot water]

Prompt for and explore:

- What has changed from the previous system? – different (higher or lower) thermostat setting / different (individual) rooms heated / heating on for longer hours)? Why have you made changes? (explore: are they heating more rooms/ heating for more hours because the technology allows it/ they can afford it. Or fewer rooms / heating because of higher costs.)
- Would you say the house is warmer than before / that you wear fewer layers of clothes in the house – if so, why? – explore the following reasons: lower cost, greater flexibility / ease of system use? (Probe to check that this isn't because of a change in weather/season). Was this the case with the previous heating system?

- How easy/ difficult have you found making these changes?

22. Did you use any additional heating alongside the old system?

Prompt for and explore:

- What type of additional heating? Electric heaters, gas/LPG fire, open fire, wood burning stove, other
- When, for how long, why?

23. Do you use additional systems now?

- If yes, is this to a greater/same/lesser extent?
- Why have you changed your use of additional heating (e.g. new system avoids the need for these measures, or means additional heating is needed, or desire to 'see' a source of heat, e.g. a flame)

24. Have you changed the way you use hot water as a result of [name of technology/ies]? [Only relevant to ask of those for whom the renewable heating technology provides hot water or heating and hot water.]

If yes, prompt to explore:

- What has changed from the previous system? - higher temperature / increased availability / higher volumes available
- Would you say you use more hot water than before? – why? - lower cost, greater flexibility / ease of system use
- What was the old system – do you still need to use this as a reserve?

25. [If Solar Thermal] When do you use hot water?

- **In the questionnaire you said you have changed the times when you use hot water.** Do you use your hot water at different times of the day – e.g. only shower in the evenings? Probe the impact of this behaviour change. Probe – How easy/ difficult has it been to adapt to using hot water in this way? Did you receive any advice that helped you change your hot water patterns?
- **In the questionnaire you said that following the installation of a Solar Thermal heater you have NOT change the times you use hot water.** Does your Solar Thermal system provide you with sufficient hot water at the times you require? Did you think / were you advised that you may need to change the times you have / use hot water? Did you receive any guidance or advice on changing your hot water patterns? What did you think of this? Have you tried it? What would help you change your patterns?
- **How frequently do you use your alternative/ back up system to heat your hot water?** When (times of day and seasons) do you use your alternative/ back up system

3.7.8. Impacts

26. You told us that you noticed that your energy bills increased / decreased / stayed the same, after the installation. Confirm. Can you tell me in what ways your bills have changed?

Prompt for:

- By how much – month /year? Probe to check whether the tenant is responding based on the facts (actual costs) or is giving a ‘general impression’ of (changes in) costs.
- One-off or recurring?
- Is this what you expected?
- Is your household electricity consumption (how much you use) the same as before? As a household, are you doing anything differently (using more/less electricity (why?), using different fuel?)

27. What do you think are the reasons for this change?

[Use Questionnaire responses] Prompt for and explore:

- Influence of [name of renewable heat technology]
- Using supplementary / back-up system more than usual
- Lifestyle changes in household
- Fuel price changes
- Changes to household insulation / energy

28. You told us that you expect the renewable technology would / would not save you money in the long run. Why do you think that is?

29. Other than on energy bills, have you and your household experienced any other positive or negative effects from using the renewable heat technology in your home?

Prompt for: more rooms heated, more adequate heating, timing of heating (e.g. if they replaced storage heaters), issues with fuel (e.g. if they replaced coal or wood fires), other un-intended benefits or costs (e.g. able to work from home).

3.7.9. Close

30. Do you have anything to add?

31. Is there anything you would like to ask me about the research?

Thank you for your time.

Ask interviewee to sign voucher declaration and give voucher.

4. Communities competition

4.1. Community Group Householder's e-questionnaire

This questionnaire is about the Renewable Heat Premium Payment scheme Phase 2 (RHPP2). The questionnaire is part of the evaluation of RHPP2 being undertaken by ICF GHK on behalf of the Department of Energy and Climate Change (DECC).

You are invited to complete this questionnaire because you were successful in receiving a voucher payment through the RHPP2 Community Scheme.

We would be grateful if you could complete this questionnaire – your thoughts and experience are vitally important to help us better understand people's experiences of using renewable heating, and better design policies like this in the future.

The questionnaire should take around 20 minutes to complete.

Where questions refer to your renewable heating technology, please answer referring to the technology installed as part of the RHPP2 scheme. If you have installed more than one technology through the scheme, you will be sent an email for each technology you installed. In this questionnaire, please answer questions on 'your renewable heating technology' for one technology only, and complete a second questionnaire relating to your other installation through the scheme.

The information you provide is being collected for research and statistical purposes only. Data may be shared with the UK Government, or others acting on their behalf, for the purpose of research to inform the development of Government policy. Data may be linked to other surveys or datasets and summarised results may be published, but it will not be possible to identify any person, household or address from any published data.

Thank you for your time and cooperation with this important piece of research.

1. Please insert your unique ID number (this is in the email sent to you).

2. Please confirm which renewable heating technology you have installed with help from the Renewable Heat Premium Scheme (RHPP)2 Community Scheme?

(If you have installed more than one renewable heating technology under the RHPP2 scheme, please select the renewable heating technology listed in the cover email).

(Select one)

- Solar thermal system
 - Ground or water source heat pump
 - Air source heat pump
 - Biomass boiler
3. [If Q2 = "GSHP" OR "ASHP" OR "Biomass"] Before you installed your [NAME OF TECH FROM Q2] did you use a single heating system to heat both your hot water and home?
- Yes
 - No
 - Don't know
 - No previous heating system – New self-build
4. [If Q3 = "Yes" OR "Don't know"] What was the main heating system?
- Central heating – Gas (mains)
 - Central heating – Oil
 - Central heating – LPG / Other bottled gas
 - Central heating – Solid fuel
 - Fixed room heaters – Electric
 - Fixed room heaters – Gas (mains)
 - Fixed room heaters – Oil
 - Fixed room heaters – LPG / Other bottled gas
 - Fixed room heaters – Solid Fuel (open fire / enclosed stove)
 - Portable heaters – Electric
 - Portable heaters – Bottled Gas
 - Communal or district heating
 - Don't know
 - Other, please state _____
5. If [Q3 = "No"] What was the main heating system you used to heat your hot water?
- Gas
 - Oil

- Electric
 - Coal
 - Solid fuel
 - Bottled gas / paraffin
 - Gas fires
 - Communal or district heating
 - Don't know
 - Other, please state _____
6. If [Q3 = "No"] What was the previous main heating system you used to heat your home?
- Central heating – Gas (mains)
 - Central heating – Oil
 - Central heating – LPG / Other bottled gas
 - Central heating – Solid fuel
 - Fixed room heaters – Electric
 - Fixed room heaters – Gas (mains)
 - Fixed room heaters – Oil
 - Fixed room heaters – LPG / Other bottled gas
 - Fixed room heaters – Solid Fuel (open fire / enclosed stove)
 - Portable heaters – Electric
 - Portable heaters – Bottled Gas
 - Communal or district heating
 - Don't know
 - Other, please state _____
7. Overall, how satisfied were you with your previous heating systems?
- Very satisfied
 - Fairly satisfied
 - Neither satisfied or dissatisfied
 - Fairly dissatisfied
 - Very dissatisfied
8. What state was your previous heating system in when you decided to install your [NAME OF TECH FROM Q2]?
- Working well
 - Broke down occasionally
 - Broke down frequently
 - Did not provide sufficient heating

- Did not provide sufficient hot water / or to a sufficient temperature
- Don't know
- Other, please describe _____

9. [IF Q3 = "Yes" or "No" or "Don't Know"] Which of the following energy efficiency measures, if any, did you have in your home before you installed your [NAME OF TECH FROM Q2]?

(Please select all that apply)

- Thermostat controls fitted on at least some individual radiators
- Solid wall insulation (e.g. cladding external wall insulation or internal wall insulation)
- Loft insulation or top-up loft insulation
- Draught proofing or draught exclusion
- Double glazing
- Cavity wall insulation
- Hot water tank insulation
- Other insulation
- Other renewable technology
- None
- Don't know

10.[IF Q3 = "New self-build"] Which of the following energy efficiency measures, if any, did you have in your home before you installed your [NAME OF TECH FROM Q2]?

(Please select all that apply)

- Thermostat controls fitted on at least some individual radiators
- Solid wall insulation (e.g. cladding external wall insulation or internal wall insulation)
- Loft insulation or top-up loft insulation
- Draught proofing or draught exclusion
- Double glazing
- Cavity wall insulation
- Hot water tank insulation
- Other insulation
- Other renewable technology
- None
- New self-build home / not applicable
- Don't know

4.1.1. Before the Installation

11. Were you a member of the Community Group through which you participated in the RHPP2 Community Scheme, before you took part in the RHPP2 scheme?

- Yes
- No
- Don't know

12. How did you hear about the Community Group that was promoting the Renewable Heat Payment Premium Scheme locally?

(Select all that apply)

- I was a member of the Group before the RHPP scheme
- I knew about the Group from other activities they were involved with locally
- I heard through friends or neighbours (word of mouth)
- I only heard about the Group through their promotion of the RHPP scheme
- I knew about the RHPP scheme for householders and I contacted the Community Group in my area
- I was the founding member of the Community Group
- The Community Group was founded/ created for this purpose
- Other, please describe _____

13. Before deciding to install a [NAME OF TECH FROM Q2], what information did the Community Group provide you with?

(Select all that apply)

- How the renewable heating technology would work to provide heat and/or hot water
- What type of renewable heating technology would suit my home
- Recommendation about specific brands / types / manufacturers of that renewable heating technology
- Assessment of my household's energy needs
- Potential savings to my energy bills from installing a renewable heat technology
- The cost of purchasing the technology
- The cost of installation of the technology
- The value of the RHPP voucher I could claim for
- The process for claiming my RHPP voucher
- Other funding sources to help me with the cost of the renewable technology
- List of potential installers in my area
- Recommendation about specific installer(s) in my area
- Information about how to install other energy efficiency measures in my home (e.g. insulation)
- A visit to a working installation (e.g. another home)
- I didn't receive any information
- Don't know

14. How did the Community Group provide you with information about the Renewable Heat Payment Premium Scheme?

(Select all that apply)

- At a meeting at my local neighbourhood venue / my street
- At a meeting / presentation / exhibition at another public location
- Someone visited me at my home
- Over the phone
- By email
- Through leaflets and other publications
- Through a website
- Don't know
- Other, please describe _____

15. Overall, how satisfied are you with the information provided by the Community Group before the installation?

- Very satisfied
- Fairly satisfied
- Neither satisfied or dissatisfied
- Fairly dissatisfied
- Very dissatisfied
- Other, please describe _____

16. Why did you decide to install your [NAME OF TECH FROM Q2]?

(Select all that apply)

- As a more reliable energy supply
- Able to generate my own energy
- Be more self-sufficient
- Reduce my dependence on fossil fuels
- It helps the environment
- Reduce my carbon emissions
- It's more efficient
- In anticipation of the Renewable Heat Incentive
- Compliments another renewable technology installed in the property
- Building a new home
- Upgrading / refurbishing home
- It is a council or planning consent requirement
- Save money
- Rising prices of fossil fuels (e.g. gas / oil)
- Could get funding / grant

- Recommended by the Community Group
- Recommended by a friend / family member
- Recommended by a professions (e.g. plumber, architect, engineer)
- Needed to replace heating system
- Provide a more constant temperature
- Easier to use / control
- Easier access to fuel
- I like the technology
- Don't know

17. How important a consideration was saving money when you decided to install your [NAME OF TECH FROM Q2]?

- Very important
- Important
- Not important
- Not at all important
- Don't know

18. You installed [NAME OF TECH FROM Q2]. Before you decided to install [NAME OF TECH FROM Q2], were you presented with a choice of renewable heating technologies to install?

- Yes
- No
- Don't know

19. [IF Q18 = "Yes" or "Don't Know"] What were your reasons for installing a/an [NAME OF TECH FROM Q2] rather than the other renewable heating technology/ technologies offered by the Community Group?

(Select all that apply)

- It was the only renewable heating technology that the Community Group was promoting through the scheme
- Recommended by the Community Group as most suitable for my home, from the range of technologies available
- It was the only renewable heating technology that the Community Group was recommending as suitable for my home
- A professional's assessment indicated it was the most suitable technology for my home
- Recommended by the installer as most suitable for my home
- I knew from my own research / knowledge that it was the most suitable technology for my home
- This technology was the most cost-effective and/or affordable for me and my home, from the range available

- I liked the technology
- Don't know
- Other, please describe _____

20. How likely, or unlikely, is it that you would have installed your [NAME OF TECH FROM Q2] in your home, even if you had not received the Renewable Heat Premium Payment (RHPP)?

- Very likely
- Fairly likely
- Fairly unlikely
- Very unlikely
- Don't know

21. [If Q20 = "Very likely" OR "Fairly Likely"] You said it was very/ fairly likely that you would have installed your [NAME OF TECH FROM Q2] in your home even if you had not received the RHPP. When would you have done this if you had **not** received the Renewable Heat Premium Payment (RHPP)?

- I would have done it at the same time
- I would have done it within the next 6 months
- I would have done it after 6 months, but within the next year
- I would have done it after a year, but within three years
- I would have done it more than three years later
- Don't know

22. How likely, or unlikely, is it that you would have installed your [NAME OF TECH FROM Q2] in your home, even if you had **not** been involved in or supported by your Community Group?

- Very likely
- Fairly likely
- Fairly unlikely
- Very unlikely
- Don't know

a) [If Q22 = "Very likely" OR "Fairly Likely"] You said it was very/ fairly likely that you would have installed your [NAME OF TECH FROM Q2] in your home, when would you have done this if you had not been involved in or supported by your Community Group?

- I would have done it at the same time
- I would have done it within the next six months
- I would have done it after six months, but within the next year
- I would have done it after a year, but within three years
- I would have done it more than three years later
- Don't know

23. When you decided to apply through the Community Scheme, were you aware that there was a Private Householder scheme?

- Yes
- No
- Don't know

24. [If Q23 = "Yes"] Why did you decide to apply through the Community Scheme rather than the Private Householder scheme? Was it mainly because of (select one):

- Financial savings available through the scheme
- Information and support provided by the scheme
- A combination of the two

25. [If Q24 = "Financial savings" or "combination of the two"] If financial savings were important in the decision to apply through the Community Scheme, please select all those that apply

- The RHPP voucher amount was higher for households in the Community Scheme
- Discount on the cost of the technology negotiated or secured via the Community Group
- Discount on the cost of the installation negotiated or secured via the Community Group
- Other, please describe _____

26. [If Q24 = "information and support" or "combination of the two"] If information and support was important in the decision to apply through the Community Scheme, please select all those that apply:

- The Community Group encouraged me and supported me to go ahead with installing a renewable heat technology
- The Community Group provided me with information about renewable heat technologies
- I felt more comfortable installing a renewable heat technology via a Community Group knowing that there would be support from the group
- After the installation, I could put questions to the Community Group about using and maintaining the renewable heat system
- It seemed it would be easier to engage with installers through the Community Scheme

4.1.2. The Installation Process

27. How easy did you find it to arrange for an installer to provide you with a quote for the installation of your [NAME OF TECH FROM Q2]?

- Very easy
- Quite easy
- Quite difficult
- Very difficult

- Don't know
- The Community Group arranged this for me
- Other, please describe _____

28. Once you decided to accept a quote, how easy did you find it to arrange **the installation** of your [NAME OF TECH FROM Q2]?

- Very easy
- Quite easy
- Quite difficult
- Very difficult
- Don't know
- The Community Group arranged this for me
- Other, please describe _____

29. Overall, how satisfied were you with the quality of service provided by the installer of your [NAME OF TECH FROM Q2]?

- Very satisfied
- Fairly satisfied
- Fairly dissatisfied
- Very dissatisfied
- Other, please describe _____

30. Did you do any of the following at the same time as installing your [NAME OF TECH FROM Q2]?

(Tick all that apply)

- Redecorate part or all of your home
- Re-landscape your garden or other outside space
- Install radiators
- Install underfloor heating
- Install energy efficiency measures (e.g. insulation, draught proofing, double glazing, heating controls)
- Get a new shower or electric shower
- Install another renewable heating technology as part of the RHPP2 Scheme (e.g. Solar Thermal, Air Source Heat Pump, Ground or Water Source Heat Pump, Biomass Boiler)
- Install another renewable technology outside of the RHPP2 Scheme (e.g. Solar PV)
- Don't know
- Other, please describe _____
- None of the above

31. Which of the following energy efficiency measures, if any, did you install in your home at the same time as your [NAME OF TECH FROM Q2]?

(Please select all that apply)

- Thermostat controls fitted on some individual radiators
- Solid wall insulation (e.g. cladding external wall insulation or internal wall insulation)
- Loft insulation or top-up loft insulation
- Draught proofing or draught exclusion
- Double glazing
- Cavity wall insulation
- Hot water tank insulation
- Other insulation
- Other renewable technology
- None
- Don't know

32. How much did it cost (including VAT) to undertake **all the work** you had done at the same time as, and including, installing your [NAME OF TECH FROM Q2] in your home?

- Less than £2,000
- £2,000 - £3,999
- £4,000 - £5,999
- £6,000 - £7,999
- £8,000 - £9,999
- £10,000 - £11,999
- £12,000 - £13,999
- £14,000 - £15,999
- £16,000 - £19,999
- £20,000 - £29,000
- £30,000 - £39,000
- £40,000 or more
- Don't know
- Would rather not say

33. How much did it cost (including VAT, but excluding any fuel purchased) **just to install your [NAME OF TECH FROM Q2]** in your home? Please include the cost of the technology and the cost of having it installed.

- Less than £2,000
- £2,000 - £3,999
- £4,000 - £5,999

- £6,000 - £7,999
- £8,000 - £9,999
- £10,000 - £11,999
- £12,000 - £13,999
- £14,000 - £15,999
- £16,000 - £19,999
- £20,000 - £29,000
- £30,000 - £39,000
- £40,000 or more
- Don't know
- Would rather not say

34. Did you obtain a **discount** on the cost of your [NAME OF TECH FROM Q2]?

- Yes – obtained a discount on the cost of the **equipment / technology only**
- Yes – obtained a discount on the cost of **installation / labour costs only**
- Yes – obtained discount on **both** equipment and installation costs
- No
- Don't know
- Other, please describe _____

35. [If Q34 = "Yes" or "Other"] You told us that you received a discount. How did you obtain this discount?

(Please select all that apply)

- The discount was negotiated or secured through the Community Group
- I negotiated and secured the discount directly with the installer
- Don't know
- Other, please describe _____

36. In addition to the Renewable Heat Premium Payment, how did you pay for the remaining cost of your [NAME OF TECH FROM Q2]?

(Please select all that apply)

- Savings
- Commercial Loan (interest paid)
- Credit Union Loan (interest paid)
- Scottish Government Loan (interest free)
- Finance agreement with the installer
- Finance agreement with the manufacturer
- Mortgage
- Local authority scheme
- Would rather not say

- Other, please describe _____

37. Have you got a **warranty** for your [NAME OF TECH FROM Q2]?

- Yes – it was supplied free
- Yes – I had to pay for it
- No
- Don't know

38. [If Q37 – “Yes - it was supplied free” OR “Yes – I had to pay for it” OR “Don't know”]
What is your understanding of what the warranty covers?
(Select all that apply)

- Standard manufacturer's warranty
- Installer warranty
- Extended warranty
- 1 year parts/ maintenance
- 2 years parts/ maintenance
- 3 years parts/ maintenance
- 4 plus years parts/ maintenance
- Don't know
- Other, please specify _____

39. [Q2 = “GSHP” OR “ASHP” OR “Biomass” AND [If Q3 = “Yes”, “No” or “Don't Know”]
When you installed your [NAME OF TECH FROM Q2], did you remove your old heating system?
(Select one)

- Removed the old system
- Disconnected the old system, but left in place
- Kept the old system in place and still use it
- Other, please describe _____

40. [Q2 = “GSHP” OR “ASHP” OR “Biomass” AND [If Q3 = “New self-build”] When you installed your [NAME OF TECH FROM Q2], did you remove your old heating system?
(Select one)

- Removed the old system
- Disconnected the old system, but left in place
- Kept the old system in place and still use it
- New self-build home / not applicable
- Other, please describe _____

41. [IF Q39 or Q40 = “Disconnected the old system, but left in place” OR “ Kept the old system in place and still use it” or “Other”] Why did you keep you old heating system?

- It was easier to keep it
- My installer suggested I should

- I was worried about the reliability of the renewable system
- I plan to switch back to the old system
- Other, please describe _____

4.1.3. Using Your System

42. **At the time of the installation**, did you receive written information from the person or company that installed your renewable heat system, for example leaflets, handbooks, guidance, on how to use your [NAME OF TECH FROM Q2]?

- Yes
- No
- Don't know

43. [If Q42 = "Yes" or "Don't know"] What sort of information did you receive?
(Please select all that apply)

- Handbook
- Leaflets
- Website information
- Other, please describe _____

44. **At the time of the installation**, did the person or company that installed your renewable heat system explain to you or another person in your household how to use the system?

- Yes
- No
- Don't know

45. [If Q44 = "Yes" or "Don't know"] Were you satisfied with the level of explanation that you received from the person or company that installed your [NAME OF TECH FROM Q2]?

- Yes
- No
- Don't know

46. **At the time of the installation**, did you receive any advice, guidance or assistance from your **community group** on how to use your [NAME OF TECH FROM Q2]?

- Yes
- No
- Don't know
- Other, please describe _____

47. [If Q46 = "Yes" or "Don't know" or "Other"] What sort of advice, guidance or assistance did you receive from your Community Group?
(Please select all that apply)

- Written material on how to use the system

- Verbal advice on how to use the system
- Help with adjusting the system to the correct setting
- Advice or support with post-installation dealings with the installer (e.g. on addressing installation faults)
- Advice or support on claiming the RHPP voucher from EST
- Advice or support on energy or fuel suppliers and tariffs
- Advice or support on insulation in my home
- Advice on energy efficiency measures
- Don't know
- Other, please describe _____

48.[If Q47 = "Yes" or "Don't know" or "Other"] Were you satisfied with the level of advice, guidance or assistance that you received from your community group at the time of the installation?

- Yes
- No
- Don't know
- Other, please describe _____

49.Have you needed advice, guidance or assistance at any time since the technology was installed?

- Yes
- No
- Don't know

50.[If Q49 = "Yes" or "Don't know"] What were the reasons for this advice, guidance or assistance?

(Please select all that apply)

- Asked for more advice on getting the best out of the system
- The installer / manufacturer contracted me to check everything was OK
- I asked the Community Group for more advice on getting the best out of the system
- My Community Group contacted me to check everything was OK
- Manufacturing fault
- Installation fault
- Other, please specify _____

51.[If Q49 = "Yes" or "Don't know"] How did you get this advice, guidance or assistance?
(Please select all that apply)

- From the installer – renewable heating technology under warranty
- From the installer – renewable heating technology not under warranty
- From the manufacturer – renewable heating technology under warranty

- From the manufacturer – renewable heating technology not under warranty
- From my Community Group
- From the Energy Saving Trust
- From the Renewable Heating Trade Association
- From another source on the internet
- Other, please specify _____

52.[If Q49 = “Yes” or “Don’t know”] Was this advice, guidance or assistance you received sufficient?

- Yes
- No
- Don’t know

53.Compared with your previous heating system, how easy or difficult do you find it to operate your [NAME OF TECH FROM Q2]?

- Much easier
- Easier
- About the same
- More difficult
- Don’t know

54.Have you received any complaints from neighbours on your NAME OF TECH FROM Q2]?

- Yes
- No
- Don’t know

(If Q2 = “GSHP” OR “ASHP” OR “Biomass”)About Your Room Heating

55.Which of the following best describes the temperature achieved by your [NAME OF TECH FROM Q2] during ...

	Much too hot	Too hot	About right	Too cold	Much too cold	Have not experienced this yet	Don't know
... the coldest days							
... the coldest nights							
... overall							

56.How satisfied are you with the time it takes to achieve your desired level of comfort from your [NAME OF TECH FROM Q2] in....

	Very satisfied	Fairly satisfied	Fairly unsatisfied	Very unsatisfied	Have not experienced this yet	Don't know

... winter						
... autumn/spring						
...summer						

57.If you feel too cold, what are the main actions you take? (Please select up to three actions)

- Use additional heating sources
- Turn up the thermostat
- Adjust the timer to extend the time the heating is on
- Turn the heating to be on all the time
- Adjust the thermostatic radiator valves to increase the temperature
- Adjust the zone control system
- Wait for the heating system to provide a comfortable temperature
- Put on additional layers of clothing
- Do nothing
- Other, please specify_____

58.If you feel too hot, what are the main actions you take? (Please select up to three actions).

- Switch off the heating system
- Turn down the thermostat
- Adjust the timer to reduce the time the heating is on
- Adjust the thermostatic radiator valves to reduce the temperature
- Adjust the zone control system to reduce heating/temperature
- Wait for the heating system to provide a comfortable temperature
- Remove layers of clothing
- Open windows to ventilate rooms
- Open doors to ventilate rooms
- Do nothing
- Other please specify _____

59.On average, do you have your [NAME OF TECH FROM Q2] on more than you used to with your previous heating system?

- Yes
- No – same as previous heating system
- No – less than previous heating system
- Don't know

60.On average, do you run your [NAME OF TECH FROM Q2] at a higher temperature on your thermostat than you used to with your previous heating system?

- Yes
- No – it runs at the same temperature
- No – it runs at a lower temperature
- Don't know

61. During winter (Dec-Feb) have you used any supplementary heating system, in addition to your [NAME OF TECH FROM Q2], to achieve the comfort you desire in your home?

- Yes
- No
- Don't know

62. [If Q61 = "Yes" or "Don't know"] Approximately how many hours (on average) per month did you use these supplementary heating systems, during the winter (Dec-Feb)?

	More than a few hours a day	A few hours a day	A few hours once or twice a week	A few hours a month or less	Not at all/not applicable	Don't know
Plug in electric radiator						
Electric fan heating						
Electric fire						
Gas/LPG fire						
Open fire						
Wood burning stove						
Other (describe below)						

63. If you selected 'other' above, please specify which other supplementary heating system you have used:

4.1.4. About Your Hot Water

64. How satisfied are you with the **amount** of hot water available from your [NAME OF TECH FROM Q2] in...

	Very satisfied	Fairly satisfied	Fairly unsatisfied	Very unsatisfied	Have not experienced	Don't know

					this yet	
...winter						
...autumn/ spring						
...summer						

65. How satisfied are you with the **temperature** of hot water available from your [NAME OF TECH FROM Q2] in...

	Very satisfied	Fairly satisfied	Fairly unsatisfied	Very unsatisfied	Have not experienced this yet	Don't know
...winter						
...autumn/ spring						
...summer						

66. (If Q2 = "Solar Thermal") Since installing solar thermal, have you changed the times when you use hot water?

- Yes
- No
- Don't know

67. [If Q66 = "Yes" or "Don't Know"] In what way have you changed the times when you use hot water?

68. (If Q2 = "Solar Thermal") Did you expect to change the times when you use hot water, having installed solar thermal?

- Yes
- No
- Don't know

4.1.5. About Your Energy Use

69. Please state whether you agree or disagree with the following statements:

(Tick one per row)

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
I am concerned about fuel prices					
I am concerned about the impact of carbon emissions on the environment					
I like to be green / environmentally friendly					

70. Do you actively monitor how you use energy in your home? By "actively monitoring" we mean checking how much energy you are using on a regular basis.

- Yes

- No
- Don't know

71. Since you have had the [NAME OF TECH FROM Q2] installed, please state to what extent you **agree** or **disagree** with the following statements:
(Tick one per row)

	Strongly agree	Agree	Disagree	Strongly disagree	Don't know
I consider the way I use heating more now					
I consider the way I use hot water more now					
I am more careful to switch lights and electrical appliances off now					
I open windows and doors to ventilate rooms more often now					

72. Do you know how much you pay for your fuel/energy bills (for all household energy use)?

- Yes – exactly
- Yes – approximately
- I have not had a bill through yet
- No

73. [If Q3 = “Yes” or “No” or “Don't Know”] Thinking about your overall bills for energy (your total for electricity, gas and other fuels) have you noticed a change since your [NAME OF TECH FROM Q2] has been installed?

- My total household fuel bills have increased
- My total household fuel bills have decreased
- No change / my total household fuel bills have stayed the same
- Don't know
- Other, please specify _____

74. [If Q3 = “New Self-Build”] Thinking about your overall bills for energy (your total for electricity, gas and other fuels) have you noticed a change since your [NAME OF TECH FROM Q2] has been installed?

- My total household fuel bills have increased
- My total household fuel bills have decreased
- No change / my total household fuel bills have stayed the same
- Don't know
- Other, please specify _____
- New built / not applicable

75. [If Q73 or Q74= “My total household fuel bills have increased” OR “My total household fuel bills have decreased” or “Don't know” or “Other”] What do you think are the main reasons for the change to your **overall / total energy bills**?

(Tick all that apply – please answer for all fuels / energy)

- Change in price of fuel
- Changed energy supplier
- Changed energy tariff
- Changes in grants/subsidies for my fuel (e.g. free/subsidised coal)
- Access to cheaper fuel through my community group or other collective fuel buying arrangement
- Colder winters
- Change in my household circumstances (e.g. changes in working hours, retired, illness, new baby in the home)
- I heat more rooms than I used to
- I heat fewer rooms than I used to
- I have the thermostat set to a higher temperature than I used to
- I have the thermostat set to a lower temperature than I used to
- I use the heating for more hours than I used to
- I use the heating for fewer hours than I used to
- I use more hot water than I used to
- I use less hot water than I used to
- New windows (e.g. double glazing) installed in my home
- Changes in my home insulation
- [NAME OF TECH FROM Q2] installed in my home
- Thermostat or thermostatic radiators installed in my home
- Other renewable technology in my home
- Other technology changes in my home (additional or new electrical goods, e.g. fridge, lighting)
- Other reason, please describe _____

76. Do you think your new heating system will save you money in the long run?

- Yes / No / Don't know

(If Q2 = “Biomass Boiler”) About Your Fuel

77. Which fuels do you use for your biomass heating system? (Please select all that apply).

- Logs
- Pellets
- Woodchips
- Other, please specify _____

78. How satisfied are you with the following aspects of your biomass heating system?

	Very satisfied	Fairly satisfied	Fairly unsatisfied	Very unsatisfied	Don't know
Space to keep the fuel					
Time it takes to feed the boiler					
Keeping the fuel clean					

79. How easy or difficult do you find it feeding the fuel into your biomass boiler?

- Very easy
- Quite easy
- Quite difficult
- Very difficult
- Don't know

80. How easy or difficult has it been to find a source of appropriate fuel?

- Very easy
- Quite easy
- Quite difficult
- Very difficult
- Don't know

81. Where do you usually get your fuel from? (Please select all that apply).

- Buy it as a group or through a collective buying arrangement
- I buy it on the internet
- I pick it up from the local store
- I collect it locally
- It is delivered via a local supplier
- It is delivered by a national supplier
- Don't know
- Other, please specify _____

82. Did you receive any advice or assistance from your Community Group about buying fuel for your biomass boiler?

(Select all that apply)

- Yes – I was given a list of fuel suppliers
- Yes – the Community Group arranged bulk-buy discounts
- Yes – other advice or information on purchasing fuel
- No

- Don't know
- Other, please specific _____

83. How much do you estimate you spend on fuel for your biomass boiler?

Please write the amount in £ below:

£

84. Is this estimate you have provided for your fuel cost for your biomass boiler based on:

- A weekly cost
- A monthly cost
- A quarterly cost
- Don't know

4.1.6. Your Views

85. Overall, how satisfied are you with your [NAME OF TECH FROM Q2] system?

- Very satisfied
- Fairly satisfied
- Neither satisfied or dissatisfied
- Fairly dissatisfied
- Very dissatisfied

86. Overall how satisfied are you with each of the following aspects of your [NAME OF TECH FROM Q2]:

	Very satisfied	Fairly satisfied	Fairly unsatisfied	Very unsatisfied	Don't know/not applicable
Noise level					
How it looks					
How reliable it is (i.e. whether it breaks down)					
Understanding the system controls					
Ease of adjusting the controls					

87. Do you think that your [NAME OF TECH FROM Q2] has affected the current value of your property?

- Yes, I think it will be worth more now
- Yes, I think it will be worth less now
- No, I think it will be worth about the same now
- Don't know

88. Are you planning to apply for the Renewable Heat Incentive (RHI)?

- Yes
- No
- Don't know
- Never heard of the RHI

89.[If Q88= “No” OR “Don't know”] Why not?

90. Have you recommended installing a [NAME OF TECH FROM Q2] to anyone else?

- Yes
- No
- Don't know

91. Would you recommend installing a [NAME OF TECH FROM Q2] to anyone else?

- Yes
- No
- Don't know

92. Please tell us why you would or would not recommend a [NAME OF TECH FROM Q2] to anyone else?

93. Are you currently a member of the Community Group through which you participated in the RHPP2 Community Scheme?

- Yes
- No
- Don't know

94. Since your involvement in the RHPP2 communities scheme, please tell us if any of the following statements apply to you:

I am now...	Yes	No	Don't Know
... more interested in community action			
... more involved in community action			
... more interested in environmental issues			
... more involved in action on environmental issues			
... more interested in how communities can move away from fossil fuels			
... more involved in action to help communities move away from fossil fuels			

... more interested in how communities can save money on fuel bills			
... more involved in action to help communities save money on fuel bills			
Other interest / action as a result of my involvement., please describe:			

4.1.7. About Your Household

95. Please tell us your employment status:

- Full time employment
- Part time employment
- Retired
- Unemployed
- Student
- Prefer not to say
- Other, _____

96. Which of the categories represents the total annual income of your WHOLE household before deductions for income tax, National Insurance etc.

- Up to £5,199
- £5,200 to £10,399
- £10,400 to £15,599
- £15,600 to £20,799
- £20,800 to £25,999
- £26,000 to £31,199
- £31,200 to £36,399
- £36,400 to £41,599
- £41,600 to £46,799
- £46,800 to £51,999
- £52,000 to £71,999
- £72,000 to £103,999
- £104,000 to £129,999
- £130,000 or over
- Prefer not to say
- Don't know

97. Which of the following categories best describes your current tenancy status?

- Own property outright
- Own property with a mortgage
- Rent property
- Landlord of property
- Shared Ownership
- Prefer not to say
- Other, please specify _____

98. Please can you confirm when your home was built?

- Before 1919
- 1919 – 1944
- 1945 – 1964
- 1965 – 1980
- 1981 – 2000
- 2001 or after
- Don't know

99. How many people of each of the following age brackets live in your home?
(Please include yourself)

	0	1	2	3	4	5	5+
0-4							
5-11							
11-15							
16-24							
25-34							
35-44							
45-54							
55-64							
65-74							
75 or over							

100. To help us understand heating patterns, please tell us how often there is someone at home during the following times?

	Never	Rarely	Sometimes	Usually	Prefer not to say	Don't know
During weekdays						
During weeknights						
During weekends						

Information on the amount of energy used by different types of households is of great value to the government in learning from policies. Would it be OK for the Department of

Energy and Climate Change (DECC) to use data from your energy supplier on the amount of electricity (and gas – for solar thermal users) used at this address to help with this analysis? All information will be anonymised and used at a summary level for research and statistical purposes only.

101. Are you happy for DECC to obtain this information?

- Yes
- No

[If Q101 = "Yes"]

To obtain data for electricity, it is helpful to have your MPAN number. Your MPAN is the unique identifying number for the electricity meter at your property, often referred to as a 'Supply Number' or 'S' number. It is a 21 digit number, which should appear on your electricity bill (this is different from your customer account number).

S	28	9 8 7	6 5 4	
	07	0123	4567	123

Your supply number will normally be shown on your bill using a large 'S' and a grid of numbers. It might look like this:

102. Please write this 21 digit number in the box below:

([If Q101 = "Yes" and Q2 = "Solar Thermal"])

For householders with solar thermal installations it is also helpful to obtain data for mains gas, from your MPRN number. This number is unique to your property and is sometimes called the M Number or Meter point Reference Number. It should be printed on a recent gas bill, usually on either the first page or reverse of the front page. This is different from your gas supplier account number or the meter serial number printed on the meter itself.

103. Please write this 6 to 10 digit in the box below:

104. As part of on-going research into RHPP and other schemes to encourage renewable heat, we may wish to contact people in the future to take part in further research. Would you be willing to be contacted?

- Yes
- No

Thank you for your time
Your contribution is very important

4.2. Community Group Leads Topic Guide

4.2.1. Background

This topic guide is for interviews with leads from 'Community Groups' who participated in the Renewable Heat Payment Premium programme phase 2.

The purpose of the Community Groups strand was to target the middle demographic of GB housing – the three bed semi and below. One component of the scoring system was the Index of Multiple Deprivation (IMD).

There was no set model, although it was intended to facilitate local buying groups. .

Community Groups were expected to be well placed to engage local households, in line with the Big Society agenda, as a trusted intermediary between DECC and local people.

The logic model outlines the stages for these groups, which were:

- Promotion of the scheme by EST, DECC and involving the Communities Board;
- A ministerial launch and marketing seminar, to introduce and promote the scheme;
- Research and initial development for Stage 1 Application;
- Stage 1 Application submitted by CG;
- Stage 1: Project Development Phase – collaborative work to develop the project, funded and supported by DECC, EST and the Communities Board. Involved liaison with other groups through workshops and the 'Basecamp' forum as each CG researched what was appropriate for their locality and housing stock, for Stage 2 Application;
- Stage 2: Funding Application submitted;
- Project Implementation - funding awarded, for the CG's project. The Group identified households who were eligible and they were included in the application. These households and others who were subsequently engaged then applied to EST directly for a voucher. (CG's project development work was funded by 'DECC development grant');
- Household has installation (individual or as part of bulk buy) and redeems voucher.
- Follow-up, progress reporting required.

This topic guide must be tailored to what we know about the CG participating – see supporting documentation relating to the scheme including EST reviews on each project.

Not every group participating in the research progressed to the end of the pathway.

Remember: the interview is a *conversation with a purpose* and the topic guide must be used to guide the discussion. It may not be linear so make sure you are familiar with the topic guide overall.

4.2.2. Introduction

Introduce yourself.

Remind the participant of the purpose of the interview – using the materials already provided to the CG in negotiating their participation.

Thank the participant for giving their time.

Ask for permission to record the interview. Remind the participant of the confidential nature of the interview (again using materials already provided to them). Explain that the discussion is non-attributable to the individual but that we may name their project in our reporting to highlight evidence of promising practice. Seek consent for using the project as such an example of good practice. Explain that their data will be stored and destroyed securely.

Explain that you have a set of topics that you'd like to talk through with them and that the discussion should take around 45 minutes to an hour. Explain that you have some material already from their application and EST that you'll be making reference to but you will need to ask them about some of the same topics. This will be an opportunity to expand on them and discuss them in more detail. But you'll try not to be repetitive.

4.2.3. Initial Engagement with RHPP2

This first section is about the CG and about how they first engaged with RHPP2.

I'd like to begin by asking you a few questions about the group that participated in RHPP2.

We already have some information about the group from the Energy Saving Trust – EST.

- Can I just check
 - Name of group
 - Type of group or legal status (e.g. CIC)
 - Decision making (See stage one application columns 3 – 5)
- How would you summarise or describe the aims of the group?
- When was the Group established/for how long has the group been in existence?
 - Probe: Was the group formed for the purpose of the scheme?
- How long have you been involved with [Group] and what is your role?
 - Probe: In the group
 - Probe: With the RHPP2 project
 - Explore: Was the project driven principally by the lead or was it a whole group effort?
- How did [group] first become aware of RHPP2?
 - Probe: Source of information, content, when
- What next steps did [group] take to find out more?
 - Probe: Communities Board, EST, websites
 - Probe: Who in the group – and why them?
- Why was [group] interested in RHPP2?

- Probe: Interest in renewable heat technology
- Probe: Interest in environmental sustainability
- Probe: Interest in reduced energy consumption – environmental concerns; household energy bills concerns
- Probe: Interest in scheme as offering bulk buy discount
- Probe: Interest in community-based action (and links with topics above)
- Probe: key individuals (including interviewee)
- Did you or someone from [group] attend the Ministerial launch? Can you tell me about that?
 - Probe: How became aware
 - Probe: Why attended – expectations and motivations
 - Probe: Where it was, who went,
 - Probe: Views on the content
 - Probe: Views on the event overall
- The Communities Board worked with DECC to devise the RHPP2 Communities Competition. Are you aware of the Communities Board or involved with them?
 - Views of the Communities Board
 - Probe: awareness of CB input
 - Probe: personal involvement

4.2.4. Developing a Stage 1 Application

This second section is about how the CG developed the Stage 1 Application. Note that CG leads may not be able to distinguish/remember between Stage 1 and Stage 2 – try and clarify.

- Can you explain how the decision to develop a Stage 1 Application was reached?
 - Steps following seminar
 - CG meetings (routine, convened)
 - DECC, Communities Board or EST engagement Who had to be involved in meetings and decision making?
 - How was suitability of the scheme for an application from [group] assessed?
 - How was eligibility of housing within the community group area assessed?
 - How was a decision reached, and by whom? (Was it unanimous, contentious).
 - What were the crucial factors in deciding whether or not to develop a Stage 1 Application?
- Can you talk me through the steps that were required to prepare your Stage 1 Application?

- Identifying and deciding on geography (using IMD and the selection of eligible areas)
- Identifying suitable technologies and likely installations – what evidence was used (build on information in their application (for those who applied)).
 - Information sources, how they were accessed, issues with them/understanding or utilising them
 - Meetings and householder engagement – how were householders engaged at this stage, by whom and for what purpose?
 - How costs were assessed; how was finance considered and identified? What was the level of engagement with installers, suppliers or manufacturers at this point – how were they identified? How were they engaged? Were discounts or potential discounts identified and agreed at this point?
 - If different technologies were identified for different households – how was the spread of housing and technologies decided upon? Any prioritisation of housing, household or technology, and why?
 - Was the RHI a factor – was [group] aware of it, how did it influence if at all? Were households that were engaged aware of it?

If they dropped out at this stage:

- When did the group decide not to go any further, and why?
 - Different elements of the application and the work required for them and overall
 - The role of the community engagement (or lack of it/challenges with it)
 - Understandings and considerations of the technology
 - Understandings and considerations of costs and cost savings
 - The ability of the group leadership to influence the wider community/to gather support.
 - Timing/competition with other renewable energy projects – feed in tariffs, RHI, or energy efficiency measures?
 - What were the crucial factors?
 - Issues for the group in acting as a group.
- What is your view of what was good but also what could've been improved about the RHPP scheme for Community Groups?
 - What worked well?
 - What could've been improved?
- Although the group didn't take the application forward, were there any benefits from being involved in the process itself (individually, for the core group, the wider community engaged)?
 - Were networks developed or strengthened?
 - Raised awareness of environmental issues?
 - Raised awareness of renewable heat technologies?
 - Raised awareness of household energy use?

- Will any benefits be sustained?
- Did households apply under the private householder scheme instead or are they applying to RHPP2 PHH extension? Might they be doing so under the domestic RHI when it comes into force next year?
- Now that the process has finished, what are your views on renewable heat technologies?
 - Views on cost
 - Views on cost savings
 - Views on performance
 - Any intention to explore individually or as a group in the future
- Is there anything that you would like to add – that you think is important but hasn't been covered?
- Have you got any questions for me?

Thank you for your time

4.2.5. Developing a Stage 2 Application

This section is about the work done to develop a Stage 2 Application. This could be quite a complicated discussion. The discussion about the funded scheme comes later (section 7).

- Following your successful Stage 1 application, how much funding were you awarded to support the development of your Stage 2 application?
- What did you plan to spend the funding on?
- Was there a clear plan?
- Can you talk me through what was involved in developing the Stage 2 Application? (explore what worked well, what was difficult and how things were overcome)
- Go through the process chronologically. There is likely to be some moving around. Establish the timeline.
- Explore
 - Any DECC, Communities Board or EST engagement and support;
 - Workshops for co-development
 - Links with other groups
 - Basecamp platform – how used, views on usefulness.
 - Engagement with suppliers – views on choice, costs and discounts in bulk buying, ease of identification and engagement.
 - Technology type – initial views/ expectations, did they change their mind about what technology to install? If so, what were the reasons?
 - Wider community engagement – how were households involved?
 - Were different households targeted in different ways?
 - How were the needs of different households assessed and addressed?

- Information accessed and required – on technologies, good practice, the scheme
- Exploring and establishing eligibility.
- Was the development funding useful in supporting this activity?
- Was it sufficient? Were additional sources of funding accessed?
- Were there any challenges that couldn't be overcome and what would have helped?
- Were there any useful guidance documents or frameworks available to support you in the development of your project?
- What was good, what was missing?
- When was the decision made to proceed/not to proceed with the application and what were the crucial factors?
- Was it near to submission date – were any elements delayed and why?
- Were there any outstanding issues?
- Any differences amongst the group?
- Your application included XXXXXXXX technology/technologies. What were your views about the way installers worked with you?
- Ease of identifying suppliers and installers?
- Choice of suppliers/installers?
- Process of bulk buy negotiation – time, requirements, support required
- Level of discount
- Comparisons across technologies
- Process of agreement between group and company – easy to secure, differences of opinion?
- What was key in leading to the choice/mix of housing and technology?
- Available level of discounts and arrangements with installers/suppliers
- Considerations of cost
- Ease of installation/extent of disruption
- Operating characteristics (noise, ease of use)
- Suitability of housing stock
- Needs of different households
- Views of performance
- Planning permission considerations
- Overall, was the application straightforward or difficult to complete?
- Any particular areas or requirements?
- Had the development stage been sufficient to help with completion the actual application?

- Was the development stage tailored to the application's specific requirements? Was anything overlooked or missed?
- Was there assistance from the Communities Board, other groups, any other sources, with preparing the application?

If no proceed:

- Use questions at foot of section 4.2.4 to explore legacy from involvement.

4.2.6. Stage 2 Project Implementation

This section is about the project that was delivered by the Community Group once they were informed that their application was successful. This could be quite a complicated discussion.

Make reference to their award.

- How much funding were you awarded (was it the full amount you requested)?
- Were there any conditions to the funding (amendments to the application)?
- I know that your project plan was to achieve XX installations for XX technology (repeat for technologies). How many were achieved?
- I'd like to explore with you what worked well and what worked less well.
- Use the Project Report to inform your questions and probes.
- Can you talk me through the different elements of the project?
 - Awareness raising and household engagement
 - What worked well
 - What worked less well – and why
 - Implementation of installations
 - Work with installers to secure supply
 - Discounts secured (delivered as agreed at application stage?)
 - Factors that encouraged household take-up
 - Factors that were barriers to household take-up
 - Information and support needs of households – pre and post installation
 - Did households take-up their voucher but not redeem them? Why?
 - Drop out or drop off of interest once project began – amongst core group members and amongst wider community householders
 - Were there particular groups or households that were difficult to engage
 - Was finance a factor for households – how did they finance the installations and what was their view of the discount incentive?
 - Were there any restrictions or barriers linked to planning requirements (especially PDRs regarding heat pumps)?
 - Was the RHI a factor – how did it influence households that were engaged, if at all?
- Satisfaction with installers
 - Were you happy with your installers – and why?
 - Were you unhappy with your installers – and why?

- How easy or difficult was it to find available installers?
- Using the technologies
- Was training provided on the use of the technology, and to whom (community group leadership, households)?
 - Was it sufficient?
 - What would have made a difference pre and post installation?
- Implementing the project
 - Was the group's development grant sufficient for the activities involved?
 - What was required that the grant didn't cover?
- If more than one technology:
 - What are the views of the different technologies?
 - Did any householders drop out because of the choice of technology?

4.2.7. Use of Renewable Heat Technology

This section is about the experiences of using the renewable heat technology or technologies.

- What has been the experience of households in using the technology or technologies? (If more than one, consider them in turn. Tailor questions to features of technology. Use technologies crib sheet).
- Problems following initial installation when first used?
- Any repairs required? (and were these covered by warranties)
- Issues with noise?
- Issues with knowledge of how to use?
- Experiences in contrast to expectations (ease of use, performance, temperature comfort levels,)?
- What has been the impact on households' use of fuel and heating
 - Has the project reduced household expenditure? Can you provide examples or evidence (e.g. changes in the fuel bills)? How much do you spend on fuel following the installation?
 - Has it enabled people to keep their home warmer?
 - Any differences of experience between different groups? (Explore for fuel bills)
 - Has the installation encouraged take up of other energy efficiency measures?
- Has the group collected any data about household experience of using the technology?
 - What has been collected?
 - How has it been collected, and when?
 - For what purpose?
 - What does it tell us?

- Is it available to the evaluation team?
- How do people view the new systems in contrast to their previous one?
- How many households have retained their previous heating system? Do people still use their previous systems as well? Why and how much? Did they always intend to use their previous system?
- Have the new systems met expectations? Have they exceeded them?
- What are the expectations of the systems looking ahead?
- Have any teething problems been addressed?
- Has the technology only just been installed and it is too early to answer many of the questions above?
- Is the technology still being installed so that there's a mixed picture of usage and views?

4.2.8. Final Reflections

- Do you consider the project to be success of not in promoting renewable heat technology across your community?
 - How does the group define success
 - Reasons for success
 - Barriers and challenges, and how overcome.
 - Is there new interest amongst non-participating households as their neighbours use theirs?
- What is your view of the RHPP scheme for Community Groups?
 - What worked well? What worked less well?
 - Households, technologies, for the group?
- Have there been any wider benefits from being involved RHPP2 (individually, for the core group, the wider community engaged)?
 - Were networks developed or strengthened?
 - Raised awareness of environmental issues?
 - Raised awareness of household energy use?
 - Learning for the Group about managing projects or working together effectively?
 - Will any benefits be sustained?
- Now that the project is complete, what are your views on renewable heat technologies?
 - Views on cost
 - Views on cost savings
 - Views on finance
 - Any intention to explore individually or as a group in the future

- Is there anything that you would like to add – that you think is important but hasn't been covered?
- Have you got any questions for me?

Thank you for your time.

Focus Group Feasibility Check

The next stage of our research in 2014 will involve speaking to people who participated through this scheme in small groups to explore some of the issues we discussed today. Do you think members of your community group would be potentially interested in speaking to us? (If yes, explore feasibilities and practicalities e.g. location)

5. Installers and certification bodies

5.1. Installer Topic Guide

5.1.1. Introduction

Introduce yourself.

[If an e-mail has already been sent, say that you are following up on this email]

Introduce the study: Calling from ICF GHK. Commissioned by the Department of Energy and Climate Change (DECC) to conduct research into the Renewable Heat Premium Payment scheme (RHPP) phase 2.

Explain that you have a set of topics that you'd like talk through with them and that the discussion should take around 45 minutes to an hour. Key topics include:

- experiences of renewable heat technology system design and installations in private households;
- feedback received from householders around the use of renewable heat technologies;
- the impact of the RHPP scheme on the market, and in particular the installer being interviewed;
- skills and certification bodies, and;
- their outlook and perceptions around the future of renewable heat technologies in the UK.

Ask for permission to record the interview. Remind the participant of the confidential nature of the interview that the discussion is non-attributable and that data will be stored and destroyed securely.

5.1.2. Understanding the company

This first section is designed to briefly build an understanding of the nature of the installer company and build rapport. Prior to the interview, the interviewer will have completed a review of the company's website. Where answers are already known by the interview team, through experience or prior research, the questions will serve to confirm existing knowledge and build rapport.

Overview of the company

- Where is your business based?
 - Probe: Location and regions covered

- How large is your business?
 - Probe: Small family business or a multi-site national company, independent or part of a larger corporate group
 - Probe: How large is the renewable heat team within the business (if applicable)
 - Probe: Turnover
- What are the origins of your business and how long in business?
 - Probe: Original core services in boiler/heating system installation / construction / electrical / Solar PV installation
 - New entrant to renewable heat or established player – since when?
- What was your motivation for getting involved in the renewable heat market?
- How would you describe the nature of your business now?
 - Probe: Is renewable heat technology at the core or has the firm evolved to incorporate these technologies
- Which renewable heat (and RHPP eligible) technologies do you install?
 - Note: Prior to interview, cross check database to understand # of installations by technology; and cross check MCS database downloads which provide an initial idea of technology coverage, i.e. single tech or multiple). Ground Source Heat Pump, Air Source Heat Pump, Biomass boilers, Solar thermal water heating system
 - Probe: do they install non-MCS accredited renewable heat technologies? Do they install more or less non-MCS certified products compared with MCS certified techs?
- If focused on more than one technology, which technology do you have most experience/expertise in installing?
 - Probe: numbers installed (note annual install question in next section), and years installing How has this changed over time. Have they diversified. Again, prior to interview, cross check database.
 - What is key reason(s) for this technology being dominant?
- Have you been installing a renewable heating technology in private households, social housing or both?
 - Probe: Social landlord competition, householder, communities. Prior to interview, cross check database.
- Have you been involved in installations under the Green Deal and/or ECO?
 - Probe: Why did they decide to get involved?
 - What are the benefits?

5.1.3. Engaging with the RHPP

This section aims to understand the process of engaging with the RHPP and the renewable heat supply chain.

- When and how did you first hear about the RHPP?

- When did you first start installing under the RHPP?
 - Probe: Did they install in Phase 1? (2011/12)
- How many RHPP installations have you completed per year since the RHPP Scheme launched (Aug 2011)?
 - Note: Prior to interview, extract available information from database for discussion
- What demand were you/ your company initially anticipating under RHPP 2 specifically and RHPP generally?
 - Probe: Expected volumes of renewable heat installations, and what was required in order to make involvement worthwhile
 - How expected demand compared to the reality, and what factors have driven/affected demand
- What share of sales in last three years can be attributed to RHPP?
 - Probe: have you seen your business grow (in terms of revenue and # of installations) as a result of these RHPP installations
- How many non RHPP installations of renewable heating technology did you undertake in the last two years?
 - How does this compare to installations under RHPP, RHPP2 (or RHPP2 Extension)?
 - Note: may need to explain distinction between RHPP schemes if installer is unclear
 - For installers who only did one, or few installations, probe: What factors prevented you from doing more?
- What market advantage, if any, has installing renewable heating systems under the RHPP2 provided you with?
- Is your company a registered MCS installer?
 - Note: Cross check this with MCS database prior to interview but ask question as it leads into MCS discussion.
 - Note: Installations can be done by anyone but the job needs to be “Commissioned” by a MCS qualified company to be eligible for RHPP.
 - Probe: how long have you been MCS certified?
- Is MCS certification worthwhile for your business? Does it create a market for you?
 - Probe: Is the cost to your business of MCS certification worthwhile? Do you plan to renew your MCS certification? Advantages/ disadvantages of certification.
- Who is your MCS Certification Body?
 - Probe: e.g. BRE, HETAS, NICEIC, etc.
- Have you had any compliance issues adhering to the MCS standards and requirements since certification?
 - Probe: When was your last annual surveillance visit by your Certification Body?

- Is your company a member of any trade associations? What kind of support, if any, has your trade association provided in terms of guidance/support regarding improving market share in renewable heat technologies?

5.1.4. RHPP supply chain

This section aims to understand the relationships between installer and manufacturers/third parties as well as approaches to improving skills.

The supply chain

- Is your company linked to, or allied to, a particular technology manufacturer?
 - Probe: Which renewable heat technology brands do you work with? Why?
 - Do you have a contractual arrangement for the supply of equipment from named suppliers
- Do you buy direct from a manufacturer or through a supplier (sometimes known as a merchant)?
- What are technology manufacturers doing to directly/indirectly promote the take-up of renewable heat technologies to installers or end users?
- Do you have a view on the strength of the UK renewable heat technology equipment manufacturing sector?
 - Probe: Do you know where the equipment you install is manufactured?
 - Are UK manufactured products requested by clients in preference to others?
- Have you seen any evidence of competition between manufacturers / suppliers?
 - Probe: single and/or bulk purchase discounting
 - Equipment performance
 - Special features (e.g. internet connected heat pumps)
 - Probe: What effect has this had on your business in practice?
- Have you seen evidence of innovation amongst manufacturers / suppliers since the start of the RHPP?
 - Probe: technologies, services, business operations

5.1.5. RHPP customer journey

This section explores the installers experiences throughout the customer journey from promotion, design, installation and post-installation, in-use, phase.

Promotion of renewable heat technologies

Thinking about the promotion of renewable heating technologies and the RHPP scheme...

- What approaches do you use to find customers for renewable heat technologies?
 - Probe: actively market your services alongside information on RHPP (and RHI)?

- Work with 'finder' partner organisations to source jobs on your behalf?
- Target specific areas, house types? Clientele? Door to door sale? Tele marketing? Previous clients for other installations?
- Probe: over the last two year period, how aware have private household customers and RSLs been of the RHPP Scheme? Are you approached by clients
- Probe: Who informs who of the RHPP? Are installers promoting to customers or are they already aware?
- What level of interest in renewable heat technologies have you had from private householders, social landlords, community groups?
 - Probe: How has this interest changed over time?
 - What are your perceptions of consumer awareness, understanding and confidence in renewable heat technology?
 - What steps have you taken to work with Social Landlords/ Housing Associations?
 - Do you offer clients a payback calculation on the RHT system? If so, how do you calculate that?
 - Do consumers approach you having selected the renewable heating technology or do they seek advice on a range of renewable heating technologies, specification of a particular technology, etc?
- Roughly what percentage of renewable heat technology enquiries/ quote requests are converted into sales?
- What is the main motivation for your clients to install renewable heat technology?
 - Probe: concerns over rising energy costs, environmental concerns, old equipment has failed /needs replacing/ Domestic RHI
- For householders and RSLs that show an interest but do not go ahead with installing a renewable heating technology with you, do you know the reasons why?
 - Probe: cost, time, urgency of replacement heating system, installation requirements and process, planning, unsuitability of renewable heating technology to their property, concerns over reliability, durability, responsiveness, performance, etc.
- How well do you think customers and potential customers understand the full implications of installing a renewable heating technology?
- Probe potential considerations with different RHPP technologies:
 - Biomass – delivery and storage of pellets/ fuel
 - Heat pumps – bore holes, noise, hours of operation, thermal comfort
 - Solar thermal – hours of operation, access to hot water
 - Issues common to all technologies:
 - o Different from previous systems
 - o Cost of operation
 - o Maintenance issues
 - o Disruption of installation

- Probe: What information do you think consumers would benefit from prior to deciding to install a renewable heating technology

Promotion of RHPP

- From a financial perspective, how significant do you think the RHPP grant is to customers (private households / social landlords) in terms of their decision to install renewable heat technology?
 - Probe: ask about both private householders and Social Landlords
 - What is the profile of private households installing RH technology with RHPP or RHI? Eg mostly well off households? How are they funding it (loans, savings etc)?
 - In their view, would householders have installed this anyway? Has it brought forward their decision to install?
 - How important has the coming RHI been to customer (private household/ social landlord) decisions to install? Are they factoring this into their calculations?
 - Are you actively using RHI and RHPP alongside each other when marketing the technology?
- Do you provide advice on different credit and financing options – third party loans, GD Finance, funding under the Energy Companies Obligation (ECO), etc?
 - Do you have any feedback from customers planning to use the Green Deal to finance installation of renewable heat technology?
 - Note: from next year customers will be able to access the Green Deal to finance renewable heat installations
- In your experience, what types of consumers install a renewable heating technology but do not apply for a RHPP grant?
 - Probe: Reasons for this (e.g. they want to install a technology that is not accredited, want to go with a cheaper/ non accredited installer, install an accredited production but no time/ not interested in applying for the grant, etc.)
 - What sorts of renewable heating technology are they installing?
- We are interested in your views on the advantages or disadvantages to you as an installer of the RHPP scheme.
 - Probe: advantages to you of working with clients who are seeking funds through the RHPP (as opposed to those not using the RHPP)?
 - Probe: Greater demand, more complex systems (since able to pay), ability to inflate prices/discount less
 - If pertinent - probe: disadvantages to you of working with clients who are seeking funds through the RHPP (as opposed to those not using the RHPP)?
 - Probe: additional bureaucracy, uncertainty due to payment of grant on completion, customer more likely to change their mind, flow of installations is not smooth throughout the year - pinch points towards end of financial year
- If applicable, what kind of experiences have you had of working specifically with **social landlords** through the RHPP?

- Probe: Advantages, challenges
- Probe: Importance of RSL market to you
- What kind of efficiencies of scale have been achieved?
- What were your experiences of working directly with tenants? (process followed, gaining approvals, level of instruction needed)?
- If applicable, what kind of experiences have you had of working specifically with **community groups** through the RHPP?
 - Probe: Advantages, challenges
 - Probe: Importance of community group schemes to the market
 - What kinds of efficiencies of scale have been achieved?

Design of renewable heating systems

Thinking about the design stage of the customer journey...

- How does your company go about developing and pricing a quote?
 - Probe: what are the main considerations and calculations?
 - Have you/ your company changed your approach to costing renewable heat installations over time? If so in what way, and why?
- When designing a system, which part of the process do you find most challenging?
 - Probe: Assessing capacity required, building energy consumption, heat emitter design, ground loop design (for GSHPs), designing the hot water system, plumbing work, electrical work...
- Do your design calculations follow the methods prescribed in the MCS standards?
 - Probe: Do you carry out a heat loss calculation for the whole building?
 - Which heat loss calculator do you use?
 - Do you give the customer an annual estimate of fuel costs before the contract is signed
- What engagement do installers have with manufacturers regarding system design?
 - Probe: To what extent are technology manufacturers engaged in the design phase?
 - What information / guidance is available regarding system design?
 - How useful is the advice/instructions/technical support you receive from your equipment suppliers?
 - What, if any, training or advice do you get from your suppliers
- What kind of support have you had when it comes to designing the installation of renewable heating systems?
 - Probe: consider architects, project managers, intermediaries, homeowner)

- What problems/benefits does this bring?
- Note: While others should be involved to help define customer requirements, it is not quite the same as designing an installation that will meet those requirements.
- When designing a system do you use information from third parties?
 - EPC, manufacturer, other supplier, technical consultant, British Geological Survey, British/European standards, meteorological data tables?
- Have you encountered any difficulties associated with planning permission and permitted development rights?
- Probe: What are the problems? How have you resolved them? Lessons learned? How do you help customers with these issues?

----- Priority Section -----

Installation

Thinking about the installation process...

- What is your experience of the renewable heat installation process?
 - Probe: consider the different technologies,
 - Is installation taking longer than you expected/ the manufacturer stated?
 - Does it differ by building type and user group?
- What problems have you experienced with the installation process?
 - Probe: consider particular technologies, housing type, location, users, planning etc.
 - Are you feeling more confident with installations than in the past? Are you encountering less issues?
- Do you provide a one-stop-shop service or does the householder/ RSL have to arrange and mobilise other trades persons?
 - For which tasks, if any, do you typically use sub-contractors?
 - Who takes on the role of 'Project Manager', responsible for overall system?
 - Have you always worked like this or has your approach changed?
 - Probe: Particularly in the social landlord sector, where long-term supply/maintenance contracts may be in place for conventional heating systems, are specialist sub-contractors being used for renewable heat?
 - Probe: In such cases, what kind of margin are such intermediaries seeking?
- How easy or difficult is it to follow the MCS installation standard(s)?
 - Do MCS installation standards and procedures need to be improved? If so, how/in what ways?
- What kind of lead times do your customers face from initial contact to completed installation?

- What are the key factors influencing the cost of installation (aside from the cost of the equipment itself)?
- Probe: consider particular technologies and whole systems (e.g. hot water cylinders / radiator systems)
- What kind of house designs/ layouts/ features are particularly problematic
- Have you had any feedback from customers about their experience of installation? What did customers think?
- What are your views about the RHPP scheme administration by EST?
- Are you offering warranties to cover the systems?
- Note: Distinguish between warranty for individual product and warranty for the complete heating system,
- Probe: type, views on their value
- What are your views on the RHPP installer checklist?
- Probe: time taken to complete, ease of use, administrative burden
- Do you have any experience of fitting heat meters?
- Probe: If so, what is your experience of this? Is it easy, difficult?

----- Priority Section -----

In use

Thinking about the in-use phase....

- What kind of training/instructions/information do you give to customers about how to use the technology?
- Probe: What are the most common consumer errors/issues when using their renewable heating technology? What have you done to ensure this does not happen again / to other consumers?
- What, if anything, do you do to check how your installation is working in the days, weeks, months, years after installation?
- How significant are aftersales support/maintenance contracts to your business model? What is offered free/ inclusive and what is extra
- Do you have any data / feedback from clients regarding the quality of service provided by the technology (space heating/ hot water) and any challenges they are facing in adapting to the new technology?
- Have you had many issues related to technology failure / problems after installation?
- Probe: Have you been asked to do maintenance work on systems fitted by other installers?
- If so, why? What problems are you coming across?
- In your experience, how do manufacturers' claims of technology performance compare with real-world installations?

- Probe: knowledge of the seasonal performance factor of heat pumps, efficiency of biomass boilers, and impact of how equipment is installed.

5.1.6. Views on RHPP and future outlook for the renewable heat market

This section explores installer views on the outlook for the market for renewable heat.

- What do you see as the major barriers to the uptake / deployment of domestic renewable heat technologies?
- Probe: Demand side barriers (affordability, lack of trust in technology) and Supply side barriers (lack of skills, technology reliability etc.) and how overcome.
- What effect do you think the RHPP has been in creating and maintaining demand for renewable heat technologies?
- Probe: Have the RHPP grants been generous enough?
- What has been the impact of RHPP2 on the renewable heat supply chain?
- Probe: What has been the impact of RHPP2 on the renewable heat supply chain?
 - more suppliers entering market?
 - Installations more profitable due to RHPP?
 - wider customer base accessing market?
- Has RHPP2 helped to maintain the supply chain in renewable heat given the delays in introducing the domestic RHI?
- What effect have the Communities and Social Landlord aspects of the scheme had on your business? [Only ask installers under Communities and RSL schemes]
- Probe: What kind of bulk discount have community groups and social landlords, if applicable, been able to obtain under the RHPP?

Skills and training

- Do you think the RHPP has helped improve installer knowledge and skills?
- Probe: If so, in what ways? (eg. in understanding renewable heating technologies, designing systems, installations, etc.)?
- In your view is the workforce now better skilled?
- Probe: Over the lifetime of the scheme and specifically from RHPP1 (August 2011) to RHPP2 and beyond
- In what ways is your company investing in improving the quality of its renewable heat services?
 - Probe: What training have you received (or arranged for your employees)
 - Level of training
 - Has anyone from your company attended a training course or continuous professional development (CPD) on any of the renewable heat technologies you install in the last 2 years?

- What other channels are used to provide/receive training? (eg secondments, site visits, expert talks, seminars, workshops...)
- Who provided training? Training centre? Manufacturer?
- How much time/money did it cost? How many people have been trained?
- What are the benefits of this training?
- What further training would they like to receive?
- Following training what do they do differently?
- Did you see any increased interest and demand for renewable heating technology following the announcement of the start of the domestic RHI in 2014?
- Do you consider that the planned RHI tariff rates will provide the necessary stimulus for customers to purchase a renewable heating technology?
 - Probe: Could additional financing e.g. blending with Green Deal help?
- What are your company's plans for the future?
 - Are you planning to continue installing renewable heat technologies?
 - Probe: Are you considering/already working for Green Deal Providers to add a further channel to market for your services?
 - Have you considered becoming a Green Deal Installer or Assessor?
- In general what has been your experience of the RHPP2?
 - Probe: What do you see as the main **benefit** of the RHPP2 and the opportunities it offers for customers and the supply chain?
 - Do you intend to do installations under the RHPP2 Extension?
 - what do you think could have been **improved** about the scheme to enhance its impact on the renewable heat supply chain?
- Is there anything that you would like to add – that you think is important but hasn't been covered?
- Have you got any questions for me?

Thank you for your time.

If you have any questions after this interview or would like to speak to me or someone else about the evaluation, contact details are provided on the information sheet.

5.2. Certification Bodies Topic Guide

Introduction

This topic guide is for interviews with Certification Bodies active in the certification of renewable heat technology installers under the Microgeneration Certification Scheme (MCS).

Certification bodies provide services to companies that install renewable heat technology (covering air source heat pumps (ASHP), ground source heat pumps (GSHP), biomass boilers, solar thermal systems). They certify the business against a set of standards developed by the MCS.

All RHPP installations need to be commissioned by a MCS certified Installer Company.

Through their interaction with installer companies participating in the RHPP scheme, Certification Bodies bring insights into issues such as installation quality and compliance with MCS standards.

These interviews complement the interviews taking place under other workstreams.

A key objective of the RHPP2 was to encourage the uptake of renewable heat technology in order to help maintain the supply chain, given the delays in introducing the domestic Renewable Heat Incentive (RHI).

Remember: the interview is a *conversation with a purpose* and the topic guide must be used to guide the discussion. It may not be linear so make sure you are familiar with the topic guide overall.

5.2.1. Introduction

Introduce yourself.

[An e-mail will have already been sent out by ICF GHK. Say that you are following up to this email]

Introduce the study: Calling from ICF GHK. Commissioned by the Department of Energy and Climate Change (DECC) to conduct research into the Renewable Heat Premium Payment (RHPP) phase 2 scheme.

Explain that you have a set of topics that you would like to talk through with them and that the discussion should take around 30 – 40 minutes. Key topics are:

- The role of certification bodies in ensuring quality of renewable heat installations;
- Evolution of the certification body market landscape;
- Installer skills and training in the renewable heat installation industry;
- Views on installation protocols and adherence to standards;
- Your views of RHPP and the outlook for renewable heat technologies in the UK.

DECC are particularly keen to understand:

- The nature of the CB business and the services they provide
- The significance of the RHPP to the CB business and how they are adapting ahead of the RHI
- Views on standards within the installer base and the role of the CB in improving installer company skills and practices against the MCS standards
- Actions taken where weakness or non-compliance is identified
- Capabilities within the CB to check RH systems are correctly designed and installed

This is also an opportunity to gather CB insights into the installation process and warranties offered which can be triangulated against installer interviews.

Ask for permission to record the interview. Remind the participant of the confidential nature of the interview that the discussion is non-attributable, and that data will be stored and destroyed securely.

Note: underlined questions are priorities for the evaluation

Understanding the Certification Body

This first section is designed to briefly build an understanding of the nature of the Certification Body and the installer companies for which it provides certification services. Prior to the interview, the interviewer will have completed a review of the organisation's website. Where answers are already known by the interview team, through experience or prior research, the questions will serve to confirm existing knowledge and build rapport.

- When did you first start to offer certification services for renewable heat technologies under MCS?

- What RHPP-eligible renewable heat technology installations do you provide certification services for? Prompt: ASHP, GSHP, biomass boilers, solar thermal.
Probe: are there any particular RHTs for which you have particular expertise/ a market leading reputation?
- Apart from MCS certification, what other services do you provide?
 - *Probe:* Can the CB provide Green Deal, EPC certification? (Can installers obtain all the accreditation they need from this body or do they have to go to several?)
 - How does MCS compare (in terms of number of companies seeking certification) to the other certification services you provide
 - How did this service offering evolve? Is it demand driven or was there a strategic decision to move into these markets?
 - What channels are you exploiting to attract new installers? Any affiliations?
 - Advantages and disadvantages of providing other services?
- How would you characterise the installer companies that you provide MCS certification services to (probing particularly for RHPP2 eligible technologies)?
 - *Probe:*
 - number of installer companies seeking MCS certification
 - number of installer companies seeking MCS certification for RHPP technologies
 - How is market segmented:
 - Do installers typically work with one renewable heat technology or multiple?
 - Which RHPP technologies are installers seeking certification for?
 - What is the technology split across installers which you certify? What other technologies are offered (e.g. PV)
 - Size and number of employees
 - Scale of operations (local/regional/national...)
 - Diversity (# of large/small companies, geography)
 - Do the installers work exclusively with these renewable heat technologies or are they generally part of broader service/product offerings? (e.g. plumbing services, renovation, construction,...)
- How significant has RHPP been to your certification services business?
 - Has it had a big influence on the number of installer companies that you certify / your work flow?
 - If scope of RHPP2 well understood, can they state whether this is representative of the broader market for renewable heat technology installer companies?
- How has the number of installer companies seeking MCS certification (specifically for RHPP technologies) with you changed over the last two years since the introduction of the RHPP in 2011?
Probe:
 - Has your membership increased/decreased? What were the reasons?

- What annual fee do you charge? Charging structure? How has your fee structure changed since 2011 (since RHPP introduced) – reduced/increased?
- Specifically since the launch of RHPP 2 in April 2012 (but also since the start of the RHPP in summer 2011):
 - Are there many new market entrants?
 - Are companies in related sectors (plumbing, electrical services, construction) diversifying into this market?
- How much flux is there in the market – do installers switch certification bodies? Explore reasons for switching. NB anecdotal information suggests a non-compliant installer can simply switch CB.
- Probe also, market changes since August 2011 (RHPP1).
- *[Note, there are reports that companies seeking MCS certification have fallen significantly since the FIT was reduced and that installers are not renewing their MCS accreditation after it expires after 12 months]*

[Note: Anecdotal information suggests a lot of PV installers are changing to heat pumps.]

- As an organisation, has the range of renewable heat technologies now on offer in the market influenced your strategic planning decisions? Are you envisaging building market share? If so, how?

The role of the Certification Body and Implementation of MCS

- What role do you think certification bodies play in ensuring the quality of renewable heat installations?
- How would you describe the service that you provide to installer companies?
- Probe: do they play a coaching role to help the installer comply or do they see their role more as dispassionate auditor?
- How do they see their role translating into improved quality of installations?
- What procedure do you follow for the certification process in general
- [note next question specifically on annual surveillance audits]
- Probe: does this process differ according to the characteristics of the installer company in question. I.e. Do you adapt your approach according to risk-based considerations such as size, years in business etc.)
- What procedure do you follow specifically for the annual surveillance audits?
- Please describe the process and the main checks that are done.
- Probe: What are your views on annual surveillance audits? Is the process appropriate and effective?
- Does this process differ according to the company in question.
- How do you organise this process? How much control do you have over the choice of installation you will audit? (E.g. select from a list supplied by firm?) Do you have any prior discussions about technical issues with installers prior to your annual audit?
- What are the key areas of non-compliance that arise through annual surveillance audits?

- What are certification bodies doing about instances of non-compliance?
 - Do you work with companies to improve their overall quality levels?
 - Do you ever issue sanctions against installer companies?
 - What form do these sanctions take?
- How do you resolve non-compliance across historical installations which may be suffering from poor performance – are you able to ask/force installers to remove or re-fit equipment?
- What role do you think certification bodies have in terms of consumer protection, improving installer company skills and practices?
 - Probe: What action do they take where complaints have been identified? Do customers contact the certification bodies with complaints?
 - NB: We understand that Certification Bodies may check that an installer has an adequate customer complaints procedure in place but the Renewable Energy Consumer Code (RECC) should be main conduit for consumer protection. However, we understand that complaints come in through several channels (MCS, RECC, and directly from customer) – what proportion/number through each route. What interaction do they have with RECC?
- Is there a channel through which you feedback findings / insights into Summit Skills Sector Skills Council to help improve installer company skills and practices?
- What are your views of the MCS standards and processes? i.e.: MIS 3001 for solar heating; MIS 3004 for biomass systems; MIS 3005 for heat pumps and MCS 021 Heat Emitter Guide, etc.
 - *Probe:* How do these standards compare to other schemes?
 - Have you any insights into whether the companies you certify:
 - Find the MCS installation standards easy or difficult to follow?
 - Are always able to register new installations on the MCS database within the time limit?
 - How could the MCS installation standards and procedures be improved?
- Are you satisfied that your certification body has the right technical expertise to check installations for quality?
 - How do you ensure that your employees have sufficient technical expertise
 - What qualifications do your employees need to do their job effectively?
 - Are you able to attract suitably qualified candidates
 - Would higher fees allow the quality of staff to be raised?
 - Do you have a policy to rotate the clients your auditors work with – to maintain levels of scrutiny and avoid over-familiarity
- Are many installation companies using services like Easy MCS to help gain accreditation?

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[Note: Anecdotal information suggests a lot of PV installers are changing to heat pumps.]

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- How do you ensure that your employees have sufficient technical expertise
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- Would higher fees allow the quality of staff to be raised?
- Do you have a policy to rotate the clients your auditors work with – to maintain levels of scrutiny and avoid over-familiarity
- Are many installation companies using services like Easy MCS to help gain accreditation?

5.2.3. RHPP customer journey

This section aims to explore with the certification body the experiences of installer companies through certain aspects of the customer journey – particularly design and installation. It can be used to triangulate findings from the installer interviews.

Design of renewable heating systems

- Standards of renewable heat technology system design and installation have increased (e.g. heat pumps sizing), particularly through improved MCS guidance. Based on any feedback you may have received from the installer companies you certify, have you seen this improved guidance leading to improvements in design and installation of systems?
- *Probe:* understand how quality of installations overall is changing; are installer companies responding in terms of qualifications demanded of staff, training etc.
- Are manufacturers helping to improve standards and guidance?
- Are heat pump installers manipulating their models and designs to avoid oversized systems? (anecdotal insights)
- What are other issues arising?

Installation

Thinking about the installation process...

- What feedback have you had from installer companies you certify about their installation experiences?
- *Probe by renewable heat technology:* challenges, time taken relative to manufacturers guidance, efficiencies from increased numbers of installations (learning by doing)

- Are you in a position to comment on skills gaps of installers in your role as a certification body? If so, what are your perceptions of the skills and knowledge of installers in relation to renewable heat technologies?
 - *Probe:* Do skills exceed or fall short of expectations; are they fit for purpose, is there room for improvement? In what areas are installer skills particularly weak at present?
 - Has there been any noticeable improvement in skills since 2011 (RHPP coming in)?
 - Is there any technology differentiation in these skills/knowledge areas?
 - If poor – which areas should be improved?
 - If excellent – where are installers particularly competent?
 - Are certification bodies working with installers to improve the skills? (e.g. continuous professional development)
- Will the change to the new competency based MCS system help to improve quality?
 - *Probe:* Through the ‘experience worker route’, what approaches will they use to assess competence?
 - How will this change impact new entrants in particular [existing installers have 2 years to demonstrate this]?
 - What do these changes mean for the CB; will these changes impact their fee structure?
- To what extent has the RHPP2 scheme (and the RHPP more generally) helped improve the knowledge and skills regarding renewable heat technologies for the installer companies you certify?
 - *Probe:* are there now less compliance issues compared to the earlier RHPP (Phase 1) scheme or before?
- What sort of non-compliance issues have arisen around installations
 - *Probe:* How have these been detected by you?
 - What steps have you taken?
 - Do installers feel they have a role after installation (e.g. follow up visits, monitoring/maintenance, further advice to clients on appropriate usage)?
 - *[Note: planning issues and permitted development rights (PDRs) for ASHPs has been a major issue. There is concern that some ASHPs have been installed without obtaining the necessary PDR approvals]*
- What insights do you have regarding customer complaints?

[Note: As part of the surveillance audit the certification bodies inspect the company complaints log]

 - *Probe:* What sort of issues have you seen arising? System breakdowns; poorer heat outputs than envisaged; higher electricity bills (NB all foreign heat pumps apparently have immersion heaters to ‘top up’ any heat shortfall)

- Is there seasonal variability to complaints? (NB increased breakdowns in technologies under Phase 1 potentially linked to colder winters and systems having to work harder. CBs may see this picked up).
- Are particular technologies linked to common complaints?
- How are companies going about resolving these? *Probe*: how many switch technology supplier?
- What types of customers are making complaints - user type/ profile, housing type
- What are your thoughts on the quality of handover information provided to the end user?
- Is this specified within the standard?
- Are you aware that end users receive a user manual, MCS certificate etc.?
- What kind of warranty is typically available to customers of renewable heat technologies?
- *Probe*: Does the MCS set out specific guidelines around warranties? Is a 2 year warranty common? Do most faults occur within this period?

5.2.4. Reflections on RHPP and outlook for renewable heat market

This section explores views on the outlook for the market for renewable heat.

- In summary, what, if anything, do you think could have been improved about the RHPP2 scheme.
- *Probe*: more specifically, what, if anything, do you think could be improved about the RHPP2 scheme for you as a certification body?
- What are your views on the future outlook of the domestic Renewable Heat Incentive for you and other certification bodies?
- How do you see your role providing certification services to renewable heat technology installer companies in the future?
- What do you anticipate to be the impact of the domestic RHI in spring 2014 on your business? What threats or opportunities do you see? What changes have been made and why? What else needs to happen and why?
- Is there anything that you would like to add that you think is important but has not been covered?
- Have you got any questions for me?

Thank you for your time.

If you have any questions after this interview or would like to speak to me or someone else about the evaluation, contact details are provided on the information sheet.

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