# User Guide for qualitative data from the Pump Priming project

The qualitative data was collected through nine interviews.

## Consent and data sharing

Information sheets and a consent template was used, Appendices A and B. Specifically, consent was collected to capture data on participants “experience of and/or participation in the UK’s market for heat pumps”, and that “with your consent, we would like to record interviews” to better understand implications of multiple crises in geopolitics, politics, energy markets and society on the deployment of heat pumps for domestic heating in the UK. Information sheets stated that “We would like your permission to use direct quotes. If you participate in a professional capacity, we would also like to use quotations in connection with your job title or role.”

Going on to state “We would also like your permission to use anonymised data in future studies, and to share data with other researchers (e.g. in online databases). *All personal information that could identify you will be removed or changed before information is shared with other researchers or results are made public.”*

## Background to study

In October 2021 the UK government set out an approach to develop a market for domestic heat pumps (HPs) capable of deploying 600,000 units per year by 2028 up from approximately 30,000 per year between 2010 and 2020. The period since the launch of this strategy has been defined by multiple crises, in geopolitics, politics, energy markets and society.

The project set out to assess how the UK market for residential heat pumps has developed in recent years, up until May 2023, and consider what is now required to accelerate heat pump deployment in the UK. The work proceeded in three phases.

**Phase 1** was designed to facilitate understanding of the existing UK market for heat pumps and identify potential areas of interest that could be investigated as part of phase 2. A rapid review of literature was undertaken followed by nine scoping interviews with policy makers, academics, and industry. Insights derived were used to guide phase 2.

In **Phase 2** a rapid review of the UK market for heat pumps was undertaken. Building on existing approaches within innovation and Science and Technology Studies (STS) that view technology diffusion and system transformation as being defined by systemic, co-evolutionary change processes, the review explored system change in four central environments, as well as developments in the technology itself. The rapid review subsequently covered recent changes in policy and regulation, business, wider society, and user experience.

In **phase 3** of the project, three workshops were held following a decision theatre methodology, a novel, highly discursive approach designed to tackle complex, multi-stakeholder issues. These included 15 participants from across policy, business, academia and thinktanks. First insights from the rapid review were presented, before participants were guided through a series of exercise designed to explore the challenge from multiple angles and then reach decisions about the best ways to accelerate heat pump deployment in the UK, culminating in a list of prioritised change solutions.

Archived qualitative data is derived from phase 1 and consists of eight qualitative interviews.

## Methods and sampling

The interviews were open end, guided by a single question, adapted to the interviewees context as necessary: *How have the multiple crises experienced across 2022 impacted the UK market for residential heat pumps in your opinion?*

The purpose of the interviews was twofold. To build researcher understanding of the UK market for residential heat pumps and gather insights about what elements of the formative market might have changed and how, to guide the collection of data in phase 2. Analysis subsequently involved grouping insights into four thematic areas of relevance plus the focal technology, heat pumps (Figure 1).

Interviewees were purposefully sampled to capture a range of insights from policy makers industry, and academics involved in or studying domestic heat decarbonisation. Interviews were conducted over Microsoft Teams and took between 30 and 120 minutes, the duration dictated by the interviewees time and willingness to discuss the topic.

**Table 1: Interviewees Job title, organisation, sector, and date interview was undertaken.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Job title** | **Organisation** | **Sector** | **Date** |
| 1 | Electrification of Heat Lead | DESNZ | Government | 2023.03.01 |
| 2 | Senior Associate | Regulatory Assistance Project | Third | 2023.03.01 |
| 3 | Director of External Affairs | Centre for Net Zero | Industry | 2023.03.06 |
| 4 | Senior Research Fellow | University College London | Academia | 2023.03.09 |
| 5 | Emeritus Reader | University of Aberdeen | Academia | 2023.03.10 |
| 6 | Director for Growth & External Affairs | Heat pump Federation | Industry | 2023.03.15 |
| 7 | Managing Director | Alto Energy  | Industry | 2023.03.16 |
| 8 | Manager International Affairs | NIBE Energy Systems | Industry | 2023.03.20 |

## University of OxfordAppendix A

**Pump Priming**

**PARTICIPANT INFORMATION SHEET**

Central University Research Ethics Committee (CUREC) Approval Reference: SOGE C1A 23 11

1. ***Why is this research being conducted?***

In October 2021 the UK government set out an approach to develop a market for domestic heat pumps (HPs) capable of deploying 600,000 units per year by 2028 up from approximately 30,000 per year over the last decade. The period since the launch of this strategy has been defined by multiple crises, in geopolitics, politics, energy markets and society.

This project will analyse the implications of these multiple crises on the deployment of heat pumps for domestic heating in the UK and develop a range of practical insights for policy and industry.

1. ***Why have I been invited to take part?***

You have been invited to take part because of your experience of and/or participation in the UK’s market for heat pumps. We are asking a variety of stakeholders from manufacturers, installers and engineers, through policymakers to users for their input, in order to get a thorough understanding of how heat pumps work alongside existing markets, regulations, business models, complementary technologies and household practices.

1. ***Do I have to take part?***

No, your participation is voluntary. You can of course ask questions about the research before deciding whether to take part.

If you are happy to take part, we will ask you to sign a consent form.

If you do agree to take part, you may still withdraw from the study at any time before 30th June 2023, without giving a reason, by telling us of your decision.

1. ***What will happen to me if I take part in the research?***

You will be invited to participate in an interview, survey or workshop, depending on project phase. With your consent, we would like to record interviews. Each decision theatre workshop will be recorded to enable analysis.

1. ***Are there any risks in taking part?***

By taking part you will be sharing some basic personal information, and your views and thoughts, with fellow participants and researchers. However, when the researchers analyse the research they will give each participant a pseudonym, so that any personal data, opinions or thoughts expressed cannot be traced back to you. Where you are acting as an employee of an organisation we will use your job title.

1. ***Are there any benefits in taking part?***

There are no financial benefits of taking part though we hope you will find it enjoyable and useful. The research is designed to facilitate knowledge co-creation between all involved. In addition, you may find that you learn about changes in parts of the industry that you are not directly engaged with or develop insights that are relevant to your work. You may also create new contacts within the sector.

1. ***What happens to the data provided?***

The information you provide during the study is the **research data**. Any research data from which you can be identified, such as audio recordings, name, age and sex, is known as **personal data**.

**Personal data** will be stored on OneDrive for Business which has been approved by the University of Oxford for this purpose, which can only be accessed by the project team. The data will be stored for 10 years after completion of the project, after which it will be permanently deleted.

**Other research data** (including consent forms) will be stored for at least 10 years after publication of the research.

We would like your permission to use direct quotes. If you participate in a professional capacity, we would also like to use quotations in connection with your job title or role.

We would also like your permission to use anonymised data in future studies, and to share data with other researchers (e.g. in online databases). *All personal information that could identify you will be removed or changed before information is shared with other researchers or results are made public.*

1. ***Will the research be published?***

The research may be published in publicly-accessible reports, websites and journal articles. The University of Oxford is committed to dissemination of its research for the benefit of society and has established an online archive of research materials.

1. ***Who is funding the research?***

The research is funded by the *Engineering and Physical Sciences Research Council* via the Network+ for the Decarbonisation of Heating and Cooling*.*

1. ***Who has reviewed this study?***

This study has been reviewed by, and received ethics clearance through, the University of Oxford Central University Research Ethics Committee (Reference number: SOGE C1A 23 11).

1. ***Who do I contact if I have a concern about the study or I wish to complain?***

If you have a concern about any aspect of this study, please contact Dr Jake Barnes – Jacob.barnes@ouce.ox.ac.uk. We will acknowledge your concern within 10 working days and give you an indication of how it will be dealt with.

If you remain unhappy or wish to make a formal complaint, please contact the Chair of the Research Ethics Committee at the University of Oxford who will seek to resolve the matter as soon as possible: curec@ouce.ox.ac.uk.

1. ***Data Protection***

The University of Oxford is the data controller with respect to your personal data, and will determine how your personal data is used in the study, recognising that research is performed in the public interest.

Further information about your rights with respect to your personal data is available from <http://www.admin.ox.ac.uk/councilsec/compliance/gdpr/individualrights/>.

1. ***Further Information and Contact Details***

If you would like to discuss the research with someone beforehand (or if you have questions afterwards), please contact:

**Jake Barnes**

Environmental Change Institute

University of Oxford

OUCE, South Parks Road, Oxford, OX1 3QY, UK

07779335762

Jacob.barnes@ouce.ox.ac.uk

## Appendix B

 

**EMAIL CONSENT SCRIPT**

Please read the statements below. If you are happy with all of the statements, please copy and paste them into an email and send it to me at Jacob.barnes@ouce.ox.ac.uk. This will be considered to constitute giving your consent to participate in the study.

If you have any questions about the research or the statements below, please do not hesitate to contact me.

I confirm that I have read and understand the information sheet for the study Pump Priming. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

I understand that my participation is voluntary and that I am free to withdraw at any time up until 30 June 2023, without giving any reason, and without any adverse consequences or penalty.

I understand what will happen to my data.

I give the researcher(s) permission to video / audio record me as part of an interview or workshop.

I give permission for the researcher(s) to quote me directly using a pseudonym followed by my job title.

I give permission for the researcher(s) to re-contact me to clarify information.

I agree for anonymised research data collected in this study to be used in other research studies.

I am happy to take part in the research.