

## Participant Information Sheet

### PROJECT TITLE: Gaining insight into complex domestic energy practices

#### Introduction

Thomas Roberts and Kavin Preethi Narasimhan are researchers at the University of Surrey. We are asking you to take part in this study into energy use in the home. Before you decide if you want to take part, please read the following information sheet, which tells you more about what you can expect. Please take the time to read the following information carefully and feel free to ask us any questions.

#### What is the purpose of the study?

The '**Gaining insight into complex domestic energy practices**' project is part of a larger project: 'Whole System Energy Modelling' (WholeSEM), which seeks to advance our understanding of the demand for energy from households and how demand alters with changes in practice, supply and energy policy. This study aims to explore the complex nature of domestic energy use. We will be monitoring people's energy consumption for approximately 13 months and talking to them about the way in which they use energy in their homes. It is a small scale study involving 24 people living in Guildford.

#### Why have I been invited to take part in the study?

You have been invited to take part in the study because you responded to one of our advertisements.

#### Do I have to take part?

It is entirely up to you to decide whether or not you want to take part. If you choose to participate, you will be given this information sheet to keep. You will also be asked to sign a 'consent form'. If you then decide to take part, you are still free to stop at any time without giving a reason. No questions will be asked if you decide to stop. If you withdraw before the end of the study the research team will ask if you mind the data collected up to that point can be retained and used in the study. If not all the data will be destroyed.

#### What will happen to me if I take part?

A total of 24 people will take part in the study. If you agree to take part you will be asked to participate in an initial discussion to check if you meet our eligibility criteria, three interviews (each lasting approximately 90 minutes) over the next 13 months and consent to having energy monitoring equipment installed in your property. In addition during the second interview the researcher will take some still photographs of your home using a thermal imaging camera. These images will primarily be used as a tool to facilitate a discussion about the way you heat your home. However, they may also be used in reports to illustrate the research.

After you have completed the third interview you will be paid £100 for your time. If you decide to withdraw at any stage, the amount you receive will be pro-rated. You will also have the opportunity to keep the energy monitoring equipment for your own use after the study has ended.

## What will I have to do?

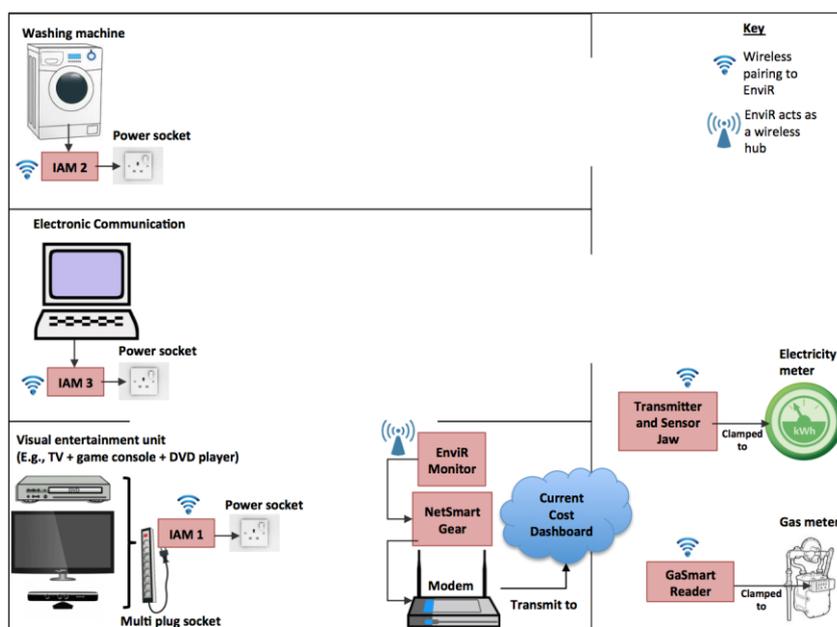
Today we are visiting you to explain what taking part in this research will entail and, if you consent, assess whether your gas meter and broadband connection is compatible with our energy monitoring equipment. If your gas meter is compatible and you give consent, you will be invited to take part in the study, which will involve three interviews and the installation of energy monitoring equipment for up to 13 months.

All the interviews will take place in your home. The first interview will take place in February/March 2016. You will be asked to describe how you came to be living in your particular house and how you use energy in your home. You will then be asked to guide the researcher around your home and explain how you use energy in the different rooms. Based on the answers to these questions the researchers will then install energy monitoring equipment in your home. The equipment will monitor your overall gas and electricity consumption, the internal temperature of your home and the electricity used by up to 5 devices. The monitoring equipment will consist of the following pieces of equipment (Figure 1 also shows how the equipment will be set up):

- Transmitter devices will be attached to the gas and electricity meters and will record the gas and electricity consumed in the household
- Up to five Individual appliance monitors (IAMs). Each IAM will monitor the energy consumed either by one specific appliance (e.g., a washing machine) or a collection of gadgets plugged into a multi-power adaptor (e.g., the visual entertainment unit) – devices are plugged into the IAMs, which are in turn plugged in to the power socket.
- Data from the transmitters and IAMs will be displayed on the energy monitor.
- The energy monitor will be connected to the households broadband router so the energy consumption data displayed in monitor can be viewed remotely by the research team

Figure 1:

A sample of energy and gas monitoring devices setup in a household



The second Interview will take place in March 2016. During this interview you will be asked a series of questions regarding the way in which you heat your home. You will then be asked to guide the researcher around your home. In each room you will be

asked to describe in detail how the room is used, what methods are available for heating and your perceptions of how warm/cold a room it is. The researcher will then use the thermal imaging camera to assess the thermal properties of the room. The findings will then be shared and discussed with you.

The third and final interview will take place in February 2017. During this interview the researcher will show you a selection of graphs representing the energy you have used during the previous year. You will then be asked a series of questions about your energy consumption and if you think there are ways you may be able to reduce it. Finally you will be asked if you would like to keep the energy monitoring equipment or have it removed by the researchers. .

In addition if a fault develops with the monitoring equipment while it is installed in your property, the researchers may ask to visit at a convenient time for you so they can rectify the problem.

We would like to record the interviews on a digital voice recorder so that we may listen to them again subsequently.

### **What are the possible disadvantages or risks of taking part?**

It is possible that interviews may touch on sensitive topics as you talk about your domestic lifestyle. In line with the British Sociological Association (2002) guidelines, you are free to stop the interview, ask for a break or ask for the recording to be stopped at any point during the interview. Additionally, if appropriate, you will be offered information and contact details about counselling and support services.

### **What are the possible benefits of taking part?**

It is likely that you will not benefit directly from the study (apart from the £100 compensation, a detailed break down of your energy use and the option to retain the energy monitoring equipment if desired). However, it is hoped that the results will enable researchers to develop a better understanding of how people use energy in their homes and subsequently make policy recommendations, which will promote sustainable energy practices.

### **What happens when the research study stops?**

At the end of the research a short summary document containing key findings from the study will be made available to all participants.

### **What if there is a problem?**

If you require any further information concerning this study please do not hesitate to contact me, Thomas Roberts (researcher) on telephone: 07519365114, email [whole.sem@surrey.ac.uk](mailto:whole.sem@surrey.ac.uk) . Additionally, if you have any complaint or concerns about any aspects of the way you are dealt with during the course of the study please contact the Head of the Sociology Department (Prof. Rachel Brooks) on telephone 01483 688987 or email: [r.brooks@surrey.ac.uk](mailto:r.brooks@surrey.ac.uk) .

### **Will my taking part in the study be kept confidential?**

Yes. All of the information you give will be anonymised so that those reading reports from the research will not know who has contributed to it.

Research data will be securely retained for a minimum of 10 years in line with University of Surrey policy. The Data Protection Act 1998 relates to the handling of Personal data. This may be inspected by regulatory authorities to check that the study is being carried out correctly. Your name, however, will not be disclosed outside the research team. The results from this study may be used for publication but all results will be kept strictly anonymous. All data use will be strictly within the terms of the Data Protection Act 1998.

With your consent, to make the most of your participation and support efficient advancements in science, any anonymised data may be used for future research. We cannot tell you at this moment in time what this research will entail or what analyses will be carried out but we can assure you that all appropriate legal, ethical and other approvals will be in place. For practical reasons your consent will not be sought again (unless you indicate you wish us to do this). Your data/samples will not be used for commercial purposes.

**Who is organising and funding the research?**

The Research is funded by the Engineering and Physical Science Research Council <http://www.epsrc.ac.uk> and forms part of the WholeSEM project, [www.wholeSEM.ac.uk](http://www.wholeSEM.ac.uk)

**Who has reviewed the project?**

The study has been reviewed and received a favourable opinion from the University of Surrey Ethics Committee.

**Thank you for taking the time to read this Information Sheet.**