

Helping E.ON understand how older customers use heating and hot water

E.ON wished to help its most vulnerable customers reduce their energy bills. So they commissioned *new experience* to conduct ethnographic research to better understand how elderly, fuel poor customers manage their use of central heating and hot water.

Expert interviews, in-home visits and diaries

We started by reviewing the literature and conducting expert interviews with academics to develop important hypotheses for exploration in our primary research.



Then we recruited 12 elderly customer households after carefully developing an invitation letter for E.ON to send to its 'Warm Assist' customers. The letter reassured customers and emphasised the opportunity to help other elderly, over and above earning an incentive, as the primary motivation for taking part.

Our first visits lasted about three hours. We toured participants' homes to understand how they used and heated their different living spaces. We also interviewed them to learn about their daily activities and routines, and how they controlled their heating and hot water.

Following these visits, we asked participants to record over 7 days all the ways in which they maintained thermal comfort including adjusting heating, but also using ancillary means like making a hot drink or adding a layer of clothing. We then re-visited our participants to discuss the diaries and some ideas about energy-saving.

Understanding behaviours and mental models to inform initiatives

We identified different user types and observed how behaviours were determined by lifestyle and routines, 'folk theories' on the efficiency of different ways of running the heating, state of health, and usability of heating controls.

We saw how mental models influence energy use such that, for example, it was common for participants to increase their thermostat settings in colder weather to 'compensate'. In some cases we found that those who controlled their heating manually would forget to lower it at bedtime. People were afraid to turn off radiators in empty rooms for fear of unbalancing the system. Some even left heating on for pets. We also found that people were far less conscious of the impact of heating water on their bill, and would set it to come on for much longer periods than required. The study's findings allowed us to identify key areas for E.ON to focus on to help its elderly customers save money.



Working with participants in their 70s and 80s

Gaining insights from older people is both challenging and rewarding. Throughout the process we took great care to make participants feel valued and at ease, and adapted our methods and materials accordingly, for example printing consent forms using a larger-than-normal font. Building trust was crucial to success, but older participants are a joy to work with: meticulous in sticking to agreed times, and in completing their diaries. They enjoyed the whole experience and were pleased to be able to contribute, and to know that their opinions were valued.

What E.ON had to say about working with us

"*new experience* helped us recognise the challenges our customers faced when managing their heating systems. Their research approach provided us with very insightful information about our customers' behaviour and mental models." *Tatiana Prieto-Lopez, Energy Efficiency Project Manager, Energy Infrastructure & End Use, E.ON*