

CASE STUDY

PIONEERING HEAT AS A SERVICE WITH BRISTOL ENERGY

HOW OUR LIVING LAB IMPROVED CUSTOMER CONFIDENCE IN DECARBONISED HEAT

Energy Systems Catapult (ESC) partnered with Bristol Energy, to trial our ground-breaking Heat as a Service (HaaS) business model. Continuing our commitment to helping the UK energy system achieve Net Zero emissions by 2050, ESC applied our widespread knowledge of smart energy to help Bristol Energy give consumers more control over their energy usage.

Bristol Energy aims to tackle social and environmental challenges such as fuel poverty and climate change. ESC trialled Bristol Energy's unique take on energy sales with our [Living Lab](#) of one-hundred real-world homes spread between Newcastle, Manchester, the West Midlands, Gloucestershire and Bridgend in Wales.

The Innovation

Bristol Energy became the first energy supplier in the UK to trial HaaS, selling both fixed and pay-as-you-go heat plans to domestic customers. With HaaS, customers buy hours of warmth in their home called 'warm hours' instead of purchasing energy units (kWh).

HaaS allows consumers to schedule and budget for a specific number of warm hours to control their heat consumption for a fixed weekly or monthly price.

If consumers have the peace of mind that HaaS will deliver the comfort they want at a price they can afford, it'll increase their confidence in switching to a low-carbon heating system.



CATAPULT
Energy Systems

ABOUT US

Energy Systems Catapult was set up to accelerate the transformation of the UK's energy system and ensure UK businesses and consumers capture the opportunities of clean growth.

The catapult is an independent, not-for-profit centre of excellence that bridges the gap between industry, government, academia and research.

We take a whole system view of the energy sector, helping us to identify and address innovation priorities and market barriers to decarbonise the energy system at least cost.

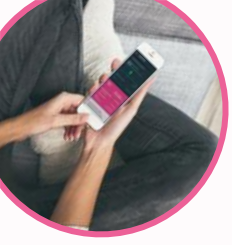
"We are thrilled to be the first UK energy company to be trialling Heat Plans in Energy System Catapult's Living Lab.

By working with the Catapult, we've gained great insights into consumers' behaviour and attitudes around how our customers like to heat their homes. We're continuing to pursue research development in this area with new trial offers coming soon... in our mission to decarbonise heat."

Samantha Nicol
Head of Innovation
Bristol Energy

BRISTOL
energy

Project name: Bristol Energy Heat as a Service
Project dates: Sept 18 – March 19
Value of project: £100k



The Challenge

Decarbonising heat is the UK's most significant challenge for transforming the energy system to meet carbon reduction targets and achieve its clean growth ambitions. The UK domestic heating market is dominated by fossil fuel gas with 85%, which equates to 24.5 million homes, heated by this source.

There isn't a silver bullet solution. While low carbon or carbon neutral heating solutions already exist, a top-down "blanket" solution is projected to cost two to three and a half more, compared to a bottom-up approach that chooses the best low carbon heating solutions on a place-by-place basis.

For most consumers, switching to low carbon heating is simply a step into the unknown. They worry about being warm and comfortable enough at an affordable price.

The Solution

ESC's expert teams worked with Bristol Energy to design and trial a HaaS offering in our Living Lab.

The Living Lab delivered smart heating controls to over 100 real-world homes to provide data about thermal performance and hour-by-hour consumption. The data allowed Bristol Energy to calculate the cost of a bespoke heat plan charging by an hour of warmth.

Residents in the Living Lab were able to compare a fixed price or pay-as-you-go heat plans. The heat plans were designed to give people greater control over comfort and cost. Crucially, it also provided the energy supplier with:

- ▶ **A commercial incentive** to deliver the levels of comfort that consumers want using as little energy and carbon as possible.
- ▶ **An opportunity to differentiate themselves** in a market.
- ▶ **Create a route-to-market** for low carbon heating.

Impact

- ▶ Designed smart energy services so energy providers can give consumers improved control over cost and comfort.
- ▶ Helped Bristol Energy test an innovative business model selling a smart energy service that gave consumers improved control over cost and comfort.
- ▶ The project helped Bristol Energy attract new customers and switch them to their HaaS offer.
- ▶ ESC helped Bristol Energy use data to design, tailor and target a range of new Heat Plans, including suitable retrofit options for each customer.
- ▶ Nine out of ten new customers continue to use HaaS (the 10% that didn't were too late to the offer) as they felt more in control of their energy usage and half of them opted for Heat Plans with the energy efficiency of new low carbon heat systems.

Next Steps

- ▶ As an early trial project, Bristol Energy indicates the possibilities for UK-wide deployment of HaaS plan.
- ▶ As long as a Heat Plan continues to deliver the comfort consumers want at a price they can afford, they are more confident of switching to a low carbon heating system like a heat pump, district heat network or hydrogen boiler.
- ▶ These insights developed innovative commercial solutions for energy services for both today's market arrangements and potential future markets.

Get in touch

To find out how we can help you, get in touch via email: consumerinsight@es.catapult.org.uk

For more information about our Consumer Insight Team, [click here](#).

