



Clean Heat Streets

Part of the Net Zero Innovation Portfolio



Lead organisation:	Funding:	Location:	No. of installs:
Samsung Electronics Ltd	£3.2m	Oxford, Oxfordshire	150

Project Overview

Oxford has an ambition to become a net zero carbon city by 2040 – ten years ahead of the Government’s targets. To do this, over 30,000 air source heat pumps will need to be installed across the city. The Clean Heat Streets project will look at how key barriers to heat pump uptake can be overcome by exploring solutions on a street-by-street basis in the Rose Hill and Iffley area of the city, rather than taking an individual home approach. We will initially recruit six show homes which will have a heat pump installed, and these homeowners will hold open days for their neighbours to increase interest and encourage more people to sign up. All recruited homes will then have heat pumps installed, and all residents will receive a full support package to help them through the installation process, and to ensure the heat pump is set up to work optimally for their home.

How is the project innovative?

The Clean Heat Streets project has innovation at all stages of the householder journey. We are utilising postcode-specific social, technical, and economic data to design an engagement strategy for the local residents, and we will tailor smart interventions such as load scheduling to benefit from time-of-use tariffs. The innovative approach allows for highly targeted value propositions and to plan for the number of likely customers for the heat pump offer in each area. As well as improving engagement with local residents, the information can be used to anticipate network constraints and work with our partner SSEN to develop smart mitigation solutions.

To help co-ordinate the deployment of heat pumps, we are developing a bespoke Information and Data Management System that will allow householders to register their interest and then to manage their journey installing a heat pump. Each project partner will also have access to the information and data they need to carry out their tasks.

“ We are delighted to be leading a consortium to install Samsung heat pumps at high density in selected neighbourhoods in Oxford, and hope implementing our research will continue to grow the take up of heat pumps in the future. ”

**SAMSUNG
Research**

Tim Bailey

Head of Energy Innovation, Samsung Research UK

Partners



Environmental Change Institute





Project customer journey

<p>Customer engagement and advice</p> <p>We use show homes and existing social networks to spread interest in communities, working with trusted local organisations and community groups.</p>	<p>We will clearly explain the steps involved in the process, and provide clear guidance of what will happen at each step; and will have a dedicated project officer ‘on the streets’ engaging with local residents.</p>
<p>Pre-installation, survey and design</p> <p>We will streamline the installation process, and benefit from the economies of scale inherent in a street-by-street approach.</p>	<p>The system design will be based on archetypes but tweaked to work for the lifestyles of the homeowners, with users able to see all relevant data at each stage.</p>
<p>Installation and commissioning</p> <p>Design and commissioning will be managed by a team of specialists, and installations will be carried out by local installers. Heat pump settings and schedules will be set prior to installation to reduce installer error.</p>	<p>Heat pump settings will maximise efficiency and comfort whilst minimising grid impact; homeowners may choose settings optimised based on a Smart Tariff or for particular times of use.</p>
<p>Post-installation and maintenance</p> <p>Installations will include remote installer monitoring. A first check up on the hot water will take place 3 weeks post installation, with remote adjustments to settings agreed with the consumer.</p>	<p>A second check up will be arranged at the start of the heating season where performance and efficiency will be monitored, alongside any changes agreed with the consumer.</p>

The high density deployment stream of Heat Pump Ready supports the development and trial of solutions and methodologies for the optimised deployment of domestic heat pumps, at high density. It aims to demonstrate reduced costs, an improved customer experience and opportunities to ready the UK for heat pump roll out.

The Department of Energy Security & Net Zero, and the Carbon Trust give no warranty and make no representation as to the accuracy of this document, and accept no liability for any errors or omissions.

Funded by:

Heat Pump Ready is funded by the Department of Energy Security & Net Zero through the NZIP programme. The Collaboration & Learning stream is managed by the Carbon Trust with support from Ipsos and Technopolis.

Contact information

Name: Tim Bailey
Email: Tim.Bailey@samsung.com

July 2023

Funded by:

Supported by: