

MAYOR OF LONDON
RETROFIT ACCELERATOR HOMES

Transforming homes in Enfield



10

homes retrofitted

3.2

total carbon saved
(tonnes per year per property)

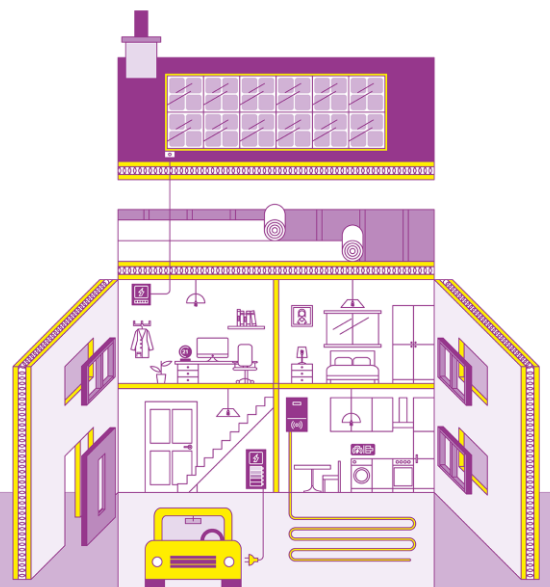
16.3k

annual energy savings
(KWh per year per property)

GREATER
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AUTHORITY



European Union
European Regional
Development Fund



The **Mayor's Retrofit Accelerator - Homes Innovation Partnership** moves the work of the Retrofit Accelerator - Homes one step further, taking a major stride towards delivering warm, comfortable and affordable net zero housing retrofit at scale, not just in London but across the UK.

Seven London-based social housing providers, including Enfield Council, and four UK building firms, along with a network of suppliers, are working together to stimulate a new market for whole house retrofit and reduce costs.

Whole-house retrofit in the London Borough of Enfield

In Summer 2019, Enfield declared a Climate Emergency. The council's Climate Action Plan set out their aspirations to tackle carbon emission from homes in the borough and a commitment to undertaking an Energiesprung pilot project.

With backing from the Social Housing Decarbonisation Fund and working alongside the Mayor of London's Retrofit Accelerator for Homes, the council delivered comprehensive energy efficiency improvements to ten homes, with a build period of 30 working days for each property. Once completed, these properties will have a space heating requirement of <40kWh/m² (against a UK average of 133kWh/m²).

The home upgrades being made

Improvements to the ten homes include external wall insulation, mechanical ventilation and heat recovery system, triple glazing and new doors, solar panels, air source heat pumps, and taking properties off-gas.

These solutions focused on a common housing archetype within Enfield, on the basis that there was opportunity to scale up delivery, see the cost benefits of economies of scale, and make significant progress in Enfield's housing targets and wider net-zero ambitions.

Enfield Council and their procured contractor, Osborne, are installing the **new Bowtie VentBox ventilation system** that contains **innovative 3D printed ductwork**. Their collaboration with manufacturer, Innovare, has led to a new design for an **'IKEA style' panelised system** that responds to logistical issues from installing larger format panels.

As part of the package of innovative measures, all participating residents have signed up to a **Comfort Plan**, at a cost of £35 per month, payable to the council. And even after factoring in this cost, all **residents' costs relating to energy will significantly reduce** while the energy performance of their property is guaranteed.

Challenges and lessons learned

There were a number of challenges faced in delivering the project, particularly in a very pressured financial situation with **spiralling inflation** having impacts throughout the supply chain.

However, as Enfield have led the way in delivering an innovative approach, there was a determination to see this through to completion, ensuring learning was embedded in the local authority, and also shared with partner housing providers through the Collaboration Hub.

Feedback from boroughs and residents

As well as reducing energy bills and creating warmer, more comfortable homes, these deep retrofits have transformed residents' sense of well being and pride in their improved homes.

“The works have definitely had a positive impact on myself and the family. The main impact is the quality of the air. My eldest son has allergies and due to the ventilation system not a lot of dust settles hence he’s had less flare ups.

“Another great impact is the heating. The house is so warm I’ve barely had the heating on since the system went in.”

- **Naznin, resident**

“The Innovation Partnership has a good understanding of the other commitments, pressures and constraints we have as a local authority which is good to not be completely blinkered by project delivery.

“Where we’ve come up against new challenges the team has continuously helped us come up with solutions and consider alternative scenarios.”

- **Kevin Hartshorne – Head of Asset Management, LB Enfield**

Get in touch

Get in touch with the Retrofit Accelerator team to find out more about the work we do or opportunities to get involved.

Email: retrofitaccelerator@london.gov.uk

Project photos



- Completed retrofitted home



- Completed retrofitted home including solar



- Home before works began



- Bowtie Ventbox

