



CARDO

Retrofit Case Study

London Borough of Enfield

PROJECT

PROGRAMME

PURPOSE

CONTRACT

OVERVIEW

Retrofit Solutions

Customer Experience

Carbon Neutral Solutions



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The Challenge

Cardo Carbon Neutral Solutions and the London Borough of Enfield (LBE) alongside the Greater London Authority (GLA) have begun the journey towards creating Net Zero homes for their residents.

LBE carried out a review of their properties to identify homes suffering from poor energy performance, resulting in residents incurring higher energy bills. LBE identified 44 semi-detached solid brick-built properties constructed in the 1930s.

All properties selected had an Energy Performance Certificate scoring of D or below, and were suffering from condensation issues.



The Solution

Cardo worked to understand LBE's aspirations for this retrofit project, and then spoke with the residents of the properties to understand what's most important to them when developing the retrofit design. This resident engagement is a continual process throughout the project.

Cardo worked in partnership with Bow Tie Construction who are recognised award winners in retrofitting, providing their recognised design solutions. Sciana were also partners and supported this project as Retrofit Assessors and retrofit coordination, ensuring a seamless development of a solution that not only met the performance targets, but maintains value for money.

The new retrofit design combines airtightness, insulation, ventilation, new heating and hot water systems, solar PV, and battery storage.



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The Outcome

Allowing residents input into the design and the process was vital to maintaining a working relationship throughout the project. Ensuring continued regular engagement kept residents motivated and reduced the potential of them wanting to withdraw from the programme.

Having a completed stock condition survey by the client allowed us to identify any enabling works upfront, which was key to ensuring the project forecast timeline was achievable. Understanding whether items like the roof require replacement helped to manage cost forecasts, and also had an influence on the design and potential system elements.

After successfully completing the first wave of properties, we achieved an average reduction of 3 tonnes of CO2 emissions, annually, for each property and an average decrease of 8,099kWh per year in space heating, achieving an EPC rating of B.

Cardo is committed to maintaining close collaboration with our partners and residents to help them fully make use of the benefits of their retrofitted home. We are actively working together to identify and implement small adjustments in residents' usage patterns that can further enhance these benefits.

