

Energy & Sustainability

Leicester City Housing Stock

What good retrofit looks like

Barriers to Retrofit

Energy efficiency in Leicester homes

Private Sector Energy Projects and their achievements to date

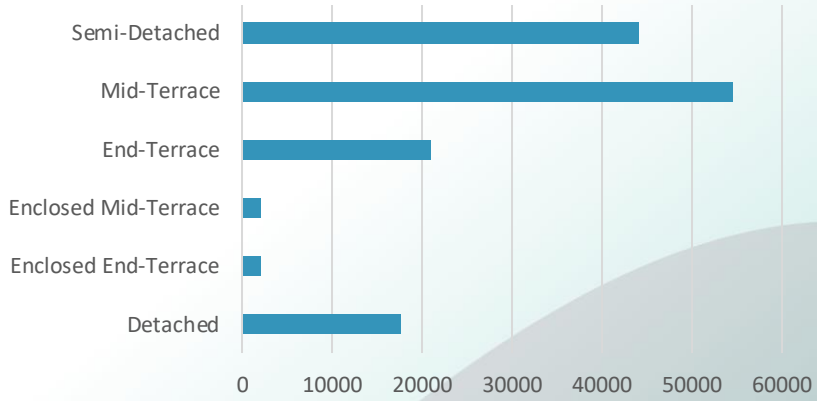
Private Sector Energy Projects in progress



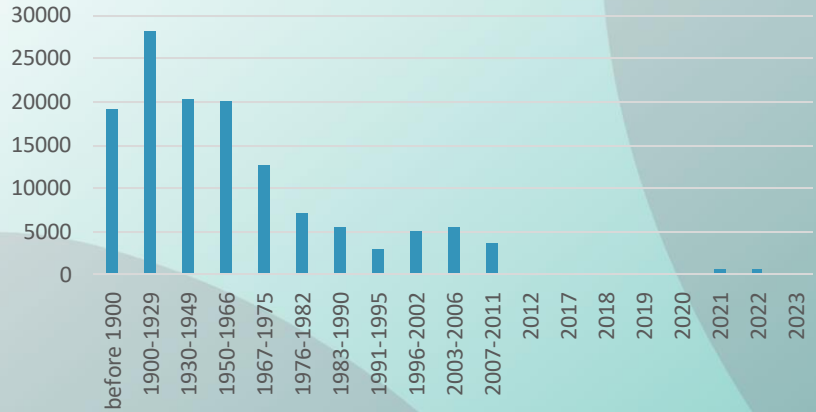
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Leicester City Housing Stock

ARCHETYPES



CONSTRUCTION AGE



Majority of Leicester's housing stock is early 1900's red brick semi-detached or mid terraced



Co-benefits of retrofitting Leicester's homes

- Reducing fuel poverty and addressing the cost of living crisis
- Reducing damp and mould and improving internal air quality
- Health benefits to residents
- Climate justice – supporting vulnerable groups as climate change mitigation moves forward
- Creating local jobs in retrofit installation
- Improving the local economic buying power of residents

What does good retrofit look like?

Step 1 – Assess the property



What improvements are needed?



- Consider who lives in the property and their needs.

Step 2 – Prepare a Whole House plan

A bespoke plan and design for the whole of home, detailing all the measures possible to make the home as energy efficient as possible.



The plan also includes recommendations on which measures are the most cost-effective, have the most impact and in which order to carry them out.

Step 3 – Upgrade the fabric first



Improvements to the fabric of the property should be considered first. This includes insulation improvements as well as windows and external doors.

- Next the heating can be considered with improvements such as upgrading heating controls or opting for low carbon heating.



Step 4 – Renewable Technologies



Once the fabric of the building is well insulated and the heating is upgraded, you can consider renewable technologies such as solar PV panels or solar thermal to supplement the home's fuel costs.



At this point you can also consider battery storage for any power you generate or exporting excess power to the grid for SEG payments.

Step 5 – Energy Tariffs

- Consider a smart meter and compare energy tariffs to ensure you are on the one that's most suitable for you.



What is Retrofit?

Retrofit improves existing buildings with the aim to increase its energy efficiency, making them easier to heat, able to retain heat for longer, and replaces fossil fuels with renewable energy

Fabric Measures:

- Loft/Roof insulation
- Wall Insulation
- Floor Insulation
- External Doors
- Windows
- Draught proofing
- Hot water cylinder insulation

Low Carbon Heating Measures:

- Heating Controls (smart/digital)
- Heat Pumps (air to water, air to air, ground to water)
- High heat retention storage heaters

Renewable technologies:

- Solar PV Panels
- Solar Thermal (hot water)
- Battery Storage



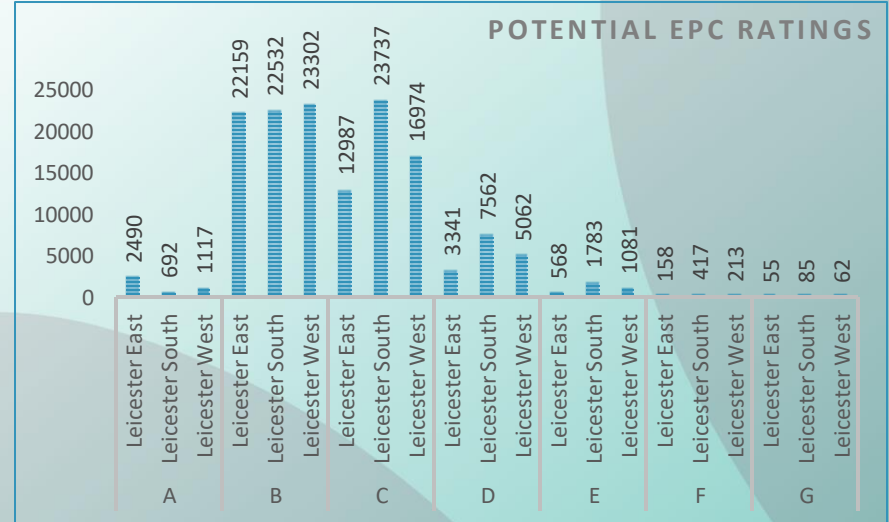
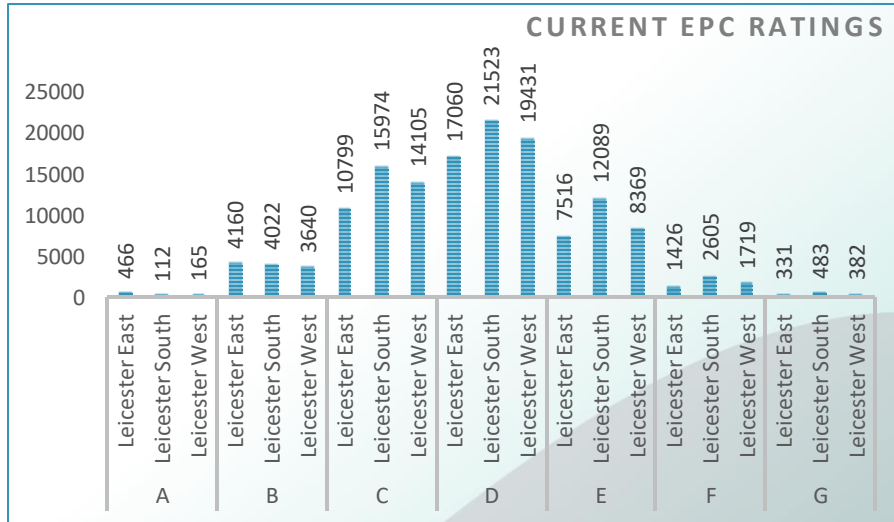
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Barriers to retrofit

- Solid wall properties
- Inaccessible loft spaces (full of belongings, small loft hatch)
- Homes in a state of disrepair
- Homes off the gas grid
- Homes in a conservation area, or grade listed homes
- Planning requirements to retain street scene/character of homes
- Occupant's cost of redecoration after intervention
- Occupant's values/preferences
- Occupant upheaval/disruption to life
- Cost
- Trained and reliable supply chain



Energy efficiency of homes in Leicester



Current

- 36% of Leicester homes are EPC C or above
- 40% of Leicester homes are EPC D
- 24% of Leicester homes are EPC E or below

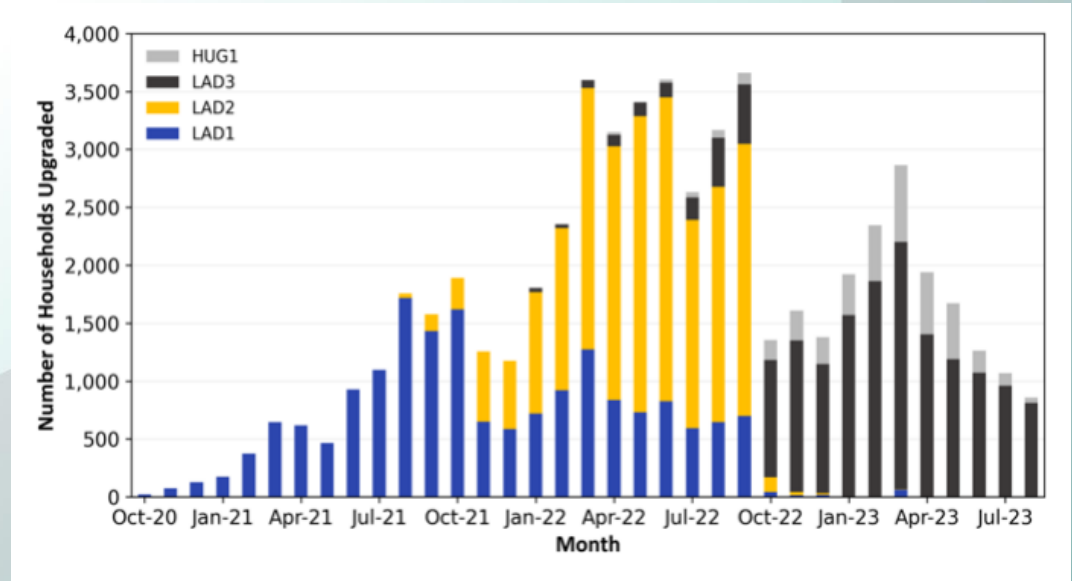
Potential

- 86% of Leicester homes are EPC C or above
- 11% of Leicester homes are EPC D
- 3% of Leicester homes are EPC E or below

Green Homes Grants Local Authority Delivery Scheme & Home Upgrade Grants

The LAD/HUG scheme aims to raise the energy efficiency of low income and low energy performance homes with a focus on energy performance certificate (EPC) ratings of E, F or G.

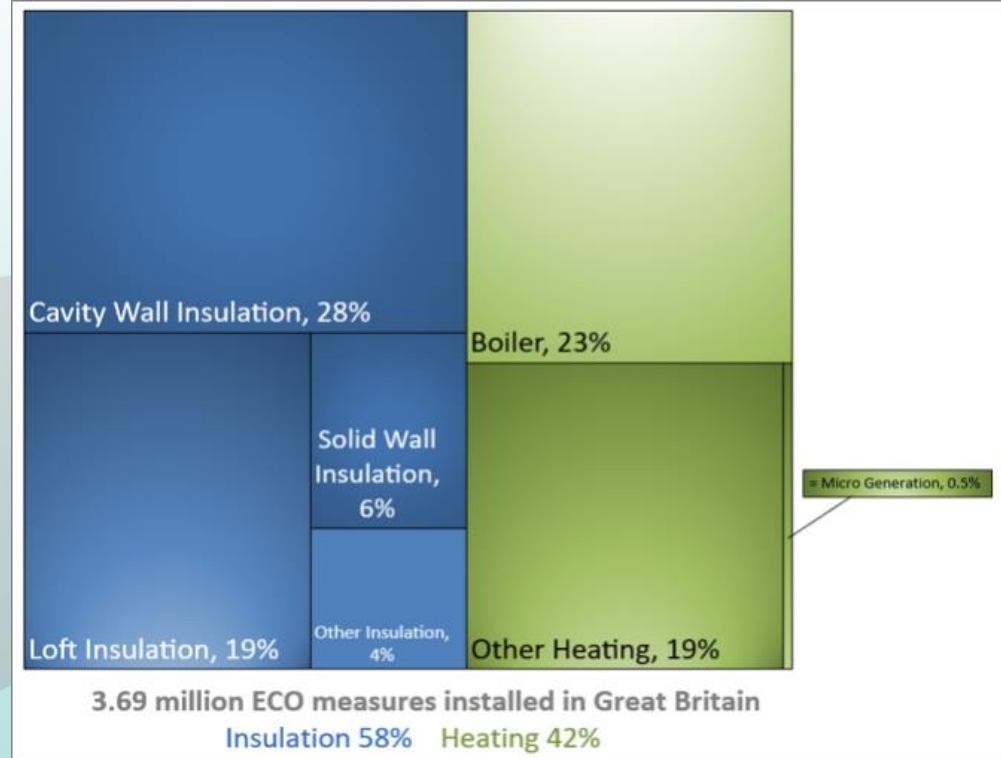
There were 4 phases of the scheme delivered since 2020.



Cumulative Number of Households Upgraded Nationally by Month, for households upgraded to the end of August 2023

- ECO is a government energy efficiency scheme in Great Britain to help reduce carbon emissions and tackle fuel poverty.
- The scheme began in January 2013, and over time it has been amended.
- The scheme obligates major energy suppliers to promote energy efficiency initiatives benefiting low-income and vulnerable households (through insulation or heating system upgrades).
- Targets are allocated among suppliers based on their market share in domestic gas and electricity.
- Local Authorities can determine eligible homes under the 'flexible eligibility' mechanism.
- Up to June 2023, 238 local authorities had seen 50 or more measures installed through Flexible Eligibility, 94 of which had over 500 measures installed.
- Scotland and the East Midlands had the joint highest number of flex measures installed of any region, with around 18 per cent each of the flex measures in Great Britain.

ECO & ECO Flex



Achievements to date

Project	Outcome	Value
Green Homes Grant LAD 1A (2020 to 2021)	50 homes upgraded (35 to EPC C or above)	£499,187
Green Homes Grant LAD 1B (2021 to 2022)	162 homes upgraded (109 to EPC C or above)	£1,993,809
Green Homes Grant LAD 2 (2021 to 2022)	129 homes upgraded (51 to EPC C or above)	£772,454
Green Homes Grant LAD 3 (2021 to 2023)	340 homes upgraded (253 to EPC C or above)	£3,964,706
Home Upgrade Grant 1 (2022 to 2023)	38 homes upgraded (6 to EPC C or above)	£317,460
ECO3 Flex (2018 to 2022)	12,917 homes confirmed as eligible for home upgrades	£34.4m approx.

LAD3 EWI Successes – New Parks Area



"Still a lot more homes to upgrade"

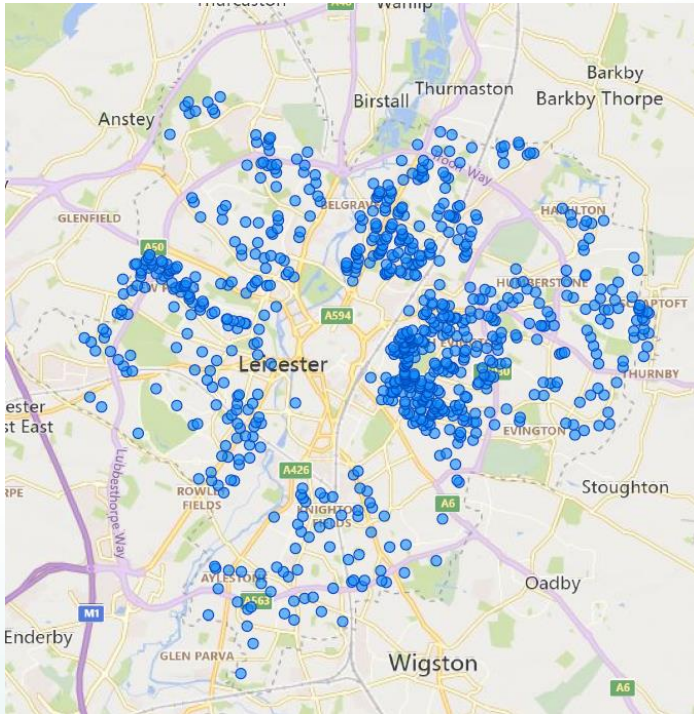


"Largest EWI programme in the midlands area"

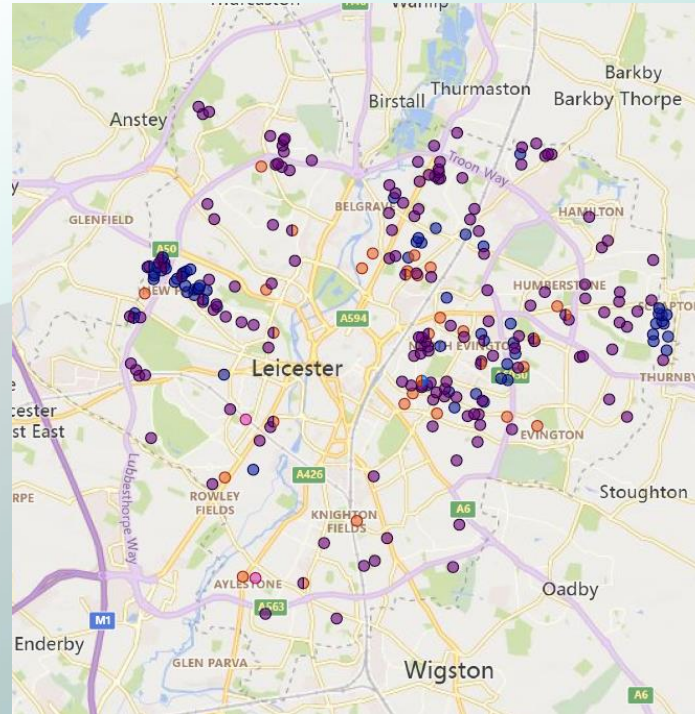


LAD3 Overall Success

Applications Map – 1086 homes applied



Installs Map – 340 homes upgraded



Home Upgrade Grants 2 (HUG2)

Purpose

- Aim is to raise the energy efficiency of **hard to treat (Off-Gas)** low income and low energy performance homes with a focus on energy performance certificate (EPC) ratings of D, E, F or G.
- Provide a package of improvements such as insulation, low carbon heating and solar PV panels.
- Aims to upgrade 159 off-gas Leicester homes over 2 years

Marketing plan:

- Promote to landlords via PRS teams email distribution list, national PRS Exemptions Register and landlord forums
- Promote the use of DESNZ's online GOV.UK eligibility checker tool
- Receive referrals from Warm Home Surveys scheme



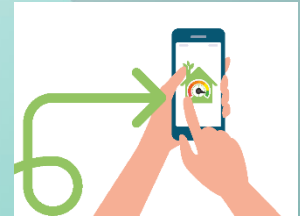
Warm Home Surveys

Purpose:

- Free in person guidance via home EPC/retrofit survey
 - An EPC tells you how energy efficient your property is and gives it a rating from A (very efficient) to G (inefficient).
 - An EPC also includes information on what the energy efficiency rating could be if you made the improvements that are recommended
 - A physical survey of the property needs to be carried out by an accredited Domestic Energy Assessor in order to obtain the information. We have 2 fully qualified DEA's on the team.
 - The retrofit assessment will breakdown suitable improvements for the property taking the occupants and any special property characteristics into account.
- Referral/signposting onto grant schemes where identified
- Digital or printed survey report for householders' future reference and guidance

Marketing plan:

- Promote to hard to reach consumers via multiple channels and referral network of community & health support/charitable workers and Local community radio advert to reach non-native English speakers
- Fuel Poverty Awareness Day event in partnership with Leicester Energy Action
- Promote via “Your Leicester” email newsletter & digital screens in all LCC buildings open to the public



LCC/EON's ECO4 community scheme

Purpose of project:

- Area based approach to target a collection of low-income streets to offer interventions under the national ECO4 scheme
- Dual branding with well know supplier who will fund and install the improvements, with the backing of LCC to encourage uptake of grants
- Community events to allow residents to ask questions and gain knowledge and confidence about interventions leading to peace of mind
- Partnership provides assurances that installs will be completed in accordance with local planning policies
- Identified areas will be expanded, with new areas chosen as scheme takes off, with the intention of eventually reaching the entire city.



Projects in progress

Project	Status	Budget
Home Upgrade Grant 2 (2023 to 2025)	52 homes applied to date	£3,291,300
Climate Ready Leicester Warm Home Surveys (2023 to 2025)	10 homes applied to date	£194,228
ECO4 Flex (2022 to 2026)	647 homes confirmed as eligible for home upgrades to date	£4 billion nationally
LCC/EON's ECO4 community scheme (2023 to 2024)	Mobilisation phase	N/A

Links and Joined up working

- **Private Rented Sector Team**, Housing – Engagement with Private landlords, attending landlord forums, MEES and training we have received via MNZH funding
- **Fuel Poverty Advisory Board**, Public Health - Leicester Energy Action project (cross referrals to each other's services)
- **Leicester City Clinical Commissioning Group**, NHS – Access to Better Care Funds to keep vulnerable homeowners warm in their own homes
- **Damp and Mould Action Group**, Neighbourhood & Environmental Services – Input and knowledge sharing around affordable warmth retrofit and links to damp/mould
- **Planning Department**– working together to combat unauthorised retrofit, especially with external wall insulation
- **Low Income Family Tracker (LIFT – Policy in Practice)**, Revenues and Customer Support – use of data to target homes in need of retrofit interventions



In practical terms, Leicester aligning with the most ambitious net zero scenario would involve



Minimum 65,000
buildings to undergo
energy efficiency
retrofits



Approx. 12,000
heat pumps
installed per year
Current total: <1000



Approx. 6,000
solar panel
installations each
year

... and no further increase in energy demand or GHG emissions from any source

Current total: 4,600



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