

RETROFITS

# Cut fuel poverty. Improve safety. Reduce maintenance.

Kensa's fifth generation innovative shared ground loop district heating design helps social landlords to finance low cost and low carbon heating system replacements using ground source heat pumps (GSHPs), alleviating fuel poverty and assisting with compliance.

For high rise buildings featuring gas combi boilers, where replacements are no longer permitted under building regulations, ground source heat pumps offer a compliant and viable non combustion alternative.



**Kensa Ground Source Heat Pump  
Shared Ground Loop Arrays**

Communal borehole ground arrays are shared by individual heat pumps inside each dwelling

## Overview

**IDEAL FOR:**

- ✓ Any electrically heated properties
- ✓ Combi boiler replacements in flats
- ✓ Clusters of 6+ properties

**JOINT FUNDED BY:**

- ✓ Non Domestic Renewable Heat Incentive
- ✓ Energy Company Obligation

**SYSTEM:**

- ✓ Shared ground loop
- ✓ Energy infrastructure for 100 years
- ✓ Individual GSHP per property
- ✓ Equivalent running cost to gas
- ✓ Simple controls
- ✓ No metering or billing required

**RHI & ECO funded**

Kensa's shared ground loop array design complies with Ofgem's district heating system definition, qualifying featuring installations for as few as two properties to receive the Non Domestic RHI and ECO (where eligible).

**Sustainable**

A Kensa ground source heat pump provides 100% of the property's heating and domestic hot water without immersion back up.

**Controllable**

Featuring an individual heat pump in every property, tenants have absolute control over their own comfort levels and energy costs.

**Compatible**

Works with radiators and standard controls.

**Simple billing**

No centralised billing; each tenant pays for heat through their own electricity bill, with freedom to switch suppliers.

**Safe**

Non combustion ground source heat pumps have no requirement for flues, ensuring compliance with fire safety and building regulations.

**Robust**

Communal nature of the ground array enhances design robustness, allowing diversity to be provided across the array.

**Cost effective**

Reduced lifetime ownership costs and low maintenance with minimal servicing requirement.

**Flexible**

Boreholes can be positioned flexibly across the site where space is available.

**Scalable**

Unrestricted scheme sizes; projects of all sizes viable.

## Kensa Contracting

The UK's Award-Winning Ground Source Heat Network Delivery Partners & Contractors.

CASE STUDY: TOGETHER HOUSING

# Multi-Site Retrofit Programme

Funding the fight against fuel poverty



Together Housing have invested in an ongoing Kensa ground source heat pump retrofit programme across its electrically heated housing stock to safeguard elderly and vulnerable tenants from fuel poverty. Featuring clusters of high and low rise properties, the scheme is the largest investment of its kind in ground source heat pump technology.

Bills reduced  
**30-50%**

ESTIMATED  
**79,000tCO<sub>2</sub>**  
lifetime carbon saving

Equivalent  
**1,666**  
cars taken off the road

## KEY FACTS

- 833 units retrofitted over 4 years
- Bedsits, maisonettes, low rise flats, houses and bungalows
- Locations across Yorkshire and Lancashire
- Replacing storage heaters
- Individual Kensa Shoebox heat pumps in each property
- Shared ground loop with boreholes
- Average lifetime carbon saving of 95 tonnes per property
- 10-14 point EPC improvement



“ This investment is a major commitment to ensuring our homes are affordable and energy efficient. Using renewable heat we can provide our customers with clean, comfortable, low cost energy and lower our carbon impact. ”

**Patrick Berry**

MANAGING DIRECTOR OF ENERGY SERVICES,  
TOGETHER HOUSING

“ You have your own control of each individual room with your thermostat on your radiators, just like gas central heating. One of the biggest advantages is you can save up to a third on your electricity bill. Its been worth it, because I am nice and warm now. ”

**Mr Glandall**

TOGETHER HOUSING RESIDENT