



# **CLIENT** Together Housing







To date, Kensa has helped around 1500 Together Housing tenants, many of whom are elderly or vulnerable, make up to 45% savings on their energy bills, as well as significantly reducing CO<sub>2</sub> emissions.

# **PROJECT OVERVIEW**

Since 2018, Kensa Contracting and Together Housing have been on a mission to tackle fuel poverty and reduce the carbon footprint of the social landlord's property portfolio.

The two organisations rolled out a multi-site renewable heating upgrade programme to increase comfort levels and lower heating costs for thousands of residents, whilst drastically cutting the carbon emissions associated with heating hundreds of properties.

This three-year ongoing project is the largest retrofit ground source heat pump programme of its kind to date and involves the install of over 1,200 ground source heat pumps in residences at 26 locations across Lancashire and Yorkshire.

The retrofit work replaced night storage heaters with small and quiet, electrically-powered and highly efficient Kensa Shoebox ground source heat pumps connected to shared ground loop arrays, where two or more properties share a borehole.

Total lifetime carbon savings of the works to date are calculated as upwards of 44,858tCO<sub>2</sub>. As the grid further decarbonises with the increased levels of renewable capacity, the carbon impact of the new ground source heating systems will be further reduced.

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The ground source heat pump investment forms part of a strategic energy plan to improve affordability of stock for tenants, reduce carbon and take advantage of existing incentives and emerging energy markets.

This investment will make a great difference to our tenants' carbon impact and paves the way for a wider application of heat pumps as we move away from fossil fuels in our properties.

Patrick Berry, Managing Director, Together Housing

### AWARDS

The collaboration between Together Housing and Kensa Contracting has been crowned 'Heat Pump City of the Year' at the internationally-acclaimed European Heat Pump Awards 2020.

#### **BENEFITS TO TENANTS**

- Increased comfort. Radiators provide more comfortable whole-house heating. Previously tenants would typically heat a single room due to the cost of direct electric heating.
- Significant improvement in control via off-the-shelf timeclock and thermostat provides residents with simple, effective control over heating.
- Ability to switch tariff to maintain lowest possible running costs also provides the opportunity to switch to time-of-use or 100% renewable energy.
- Up to 45% savings on running costs, evidenced through data gathering via smart meters. Average cost of all heat and power per home is £613 per year previously in excess of £1000 with night storage heaters.

Just Wanted to Say Thankyay to all that have fitted the new healing System in **East** I wont his I was dreading the uproar & mess, but I haven't had any of that & lin very pleased with how clean you've all been & very pleasant. *Kind Regards* 

Watch the video to take a look at how Together Housing and Kensa completed an innovative heating solution to replace old storage heaters with new ground source heat pumps.

# TENANT TESTIMONIALS

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The heating system is amazing. Before it was difficult to heat up more than one room, but now I don't have to worry about that.

One of the biggest advantages is that they say that you can save up to 1/3 on your electricity bill. It's been worth it because I'm nice and warm.



#### **BENEFITS FOR CLIENTS**

- ECO funding provided where installations demonstrate reduction in fuel poverty for those living in the worst-performing homes.
- Reduced tenant turnover and void periods due to improvement in the heating system.
- Low service and maintenance cost. In-house operatives have been trained to provide ongoing service and maintenance, up-skilling the local workforce.
- A 20-year lifecycle for the Ground Source Heat Pumps. Low replacement cost as ground array infrastructure will remain in place for 100 years.



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The scheme with Together Housing has been a true partnership of client and contractor working to achieve a shared goal of decarbonisation, reducing fuel poverty and providing affordable comfortable homes, through the adoption of British-manufactured renewable technology.

David Broom, Commercial Director of Kensa Contracting

#### **TOGETHER HOUSING**



### DELIVERED PROGRAM OF WORKS

- **Design:** including heat loss calculations, heat pump sizing, radiator sizing, hot water cylinder sizing, borehole design, hydraulic design for remainder of ground array.
- **Installation:** removal of existing heating system, all ground works including boreholes, excavation of trenches, header pipework installation in trenches, backfilling of trenches, reinstatement of ground, riser installation including all core drilling and fire stopping, heat pump installation, hot water cylinder installation, wet central heating system installation with new controls.
- Commissioning
- Handover to residents and to client
- One year defects liability period
- Project management
- Resident liaison
- Funding application support to Together Housing for RHI and ECO (where applicable).



Kensa Contracting has been the principal contractor for all 1200 GSHP installations. Kensa is responsible for the full design, installation, commissioning and handover of the entire shared ground loop GSHP system on every site.

This project features a range of property types from low-rise flats to high-rise tower blocks. The project required the existing electric night storage heaters to be replaced with individual Kensa Shoebox GSHP inside each apartment. These heat pumps are connected to a shared ground loop array consisting of vertical boreholes.

It is estimated that approximately 100,000 metres of boreholes have been drilled with depths up to 300 metres. Kensa also installed a brand-new central heating and hot water system inside each flat that was connected to each heat pump.

