



CROYDON COUNCIL HELPS HOUSEHOLDS CUT HEATING BILLS AND CARBON EMISSIONS

CLIENT

Croydon Council

Croydon set a long-term target for the borough of a 34% reduction in CO₂ emissions by 2025.

PROJECT OVERVIEW

Croydon Council was the first in the borough to make the switch to lower carbon heating after declaring a local climate emergency in the summer of 2019. That autumn, Croydon undertook a pilot project with Kensa Contracting to replace night storage heaters with networked ground source heat pumps in 44 flats in an 11-storey tower block.

It was so successful that the council worked with Kensa to install the technology into a further 87 flats across two tower blocks in the borough between 2020 and 2021 which were using gas boilers. The three projects have saved households money on their heating bills, cut carbon emissions and reduced local air pollution, contributing to Croydon's local carbon emissions reduction target of 34% by 2025.



CROYDON
www.croydon.gov.uk

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Making Croydon more sustainable is a key council priority, and by both cutting carbon emissions and residents' heating bills, these projects underline our commitment to improving the environment.

Cllr Stuart King, cabinet lead for environment and transport

Watch the video to take a behind-the-scenes look at the Croydon Council project and all the long-term benefits of ground source heating for local councils and communities.



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By switching to ground source heat pumps now, Croydon Council is delivering a cleaner, greener borough for the future.

They are also looking after the wellbeing of their tenants who will benefit from more reliable and comfortable heating and save hundreds of pounds on their fuel bills in years to come.

BENEFITS & ACHIEVEMENTS

- Each household will save between £260 and £300 a year off their heating bills.
- The ground source heat pumps installed will cost less for the council to maintain than the heating systems they replace.
- Switching from gas in the 87 flats across Dartmouth House and College Green cuts lifetime carbon emissions by the equivalent of a 344,450-mile car journey.
- In the 44 properties at Chertsey Crescent, replacing the electric storage heaters with Kensa's ground source heat pumps cuts lifetime carbon emissions by the equivalent of a 242,317-mile car journey.
- Combined, this equates to driving around the world 23 times!
- The average night storage heater produces approximately 2,001kg of carbon dioxide per year, compared to the new ground source heat pump system that produces around 645kg per year.



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The council's priorities include giving people a good place to live and tackling climate change. That's why we invested in Kensa's innovative heating system, because it saves our tenants money, keeps them warm and helps the environment.

Cllr Muhammad Ali, Cabinet Member for Sustainable Croydon



PROGRAM OF WORKS

Kensa Contracting was the specialist GSHP sub-contractor on all projects with Croydon Council, providing a complete turnkey solution for the client, including:

- **Design:** including heat loss calculations, heat pump sizing, radiator sizing, hot water cylinder sizing, borehole design, hydraulic design for remainder of ground array.
- **Installation:** including 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**
- **Funding application support** to Croydon Council for RHI and ECO (where applicable)



Watch the video to take a closer look at the key stages for the installation of Kensa Shoebox ground source heat pumps into individual flats in tower blocks, connected to shared ground loop array boreholes.



HOW TO:
SHOEBOX
GROUND SOURCE
HEAT PUMPS WITH
SHARED GROUND
LOOP ARRAYS

TOWER
BLOCKS