energetik

Decarbonising buildings in Enfield to tackle the climate emergency

European Investment Bank

SUPPORTED BY MAYOR OF LONDON

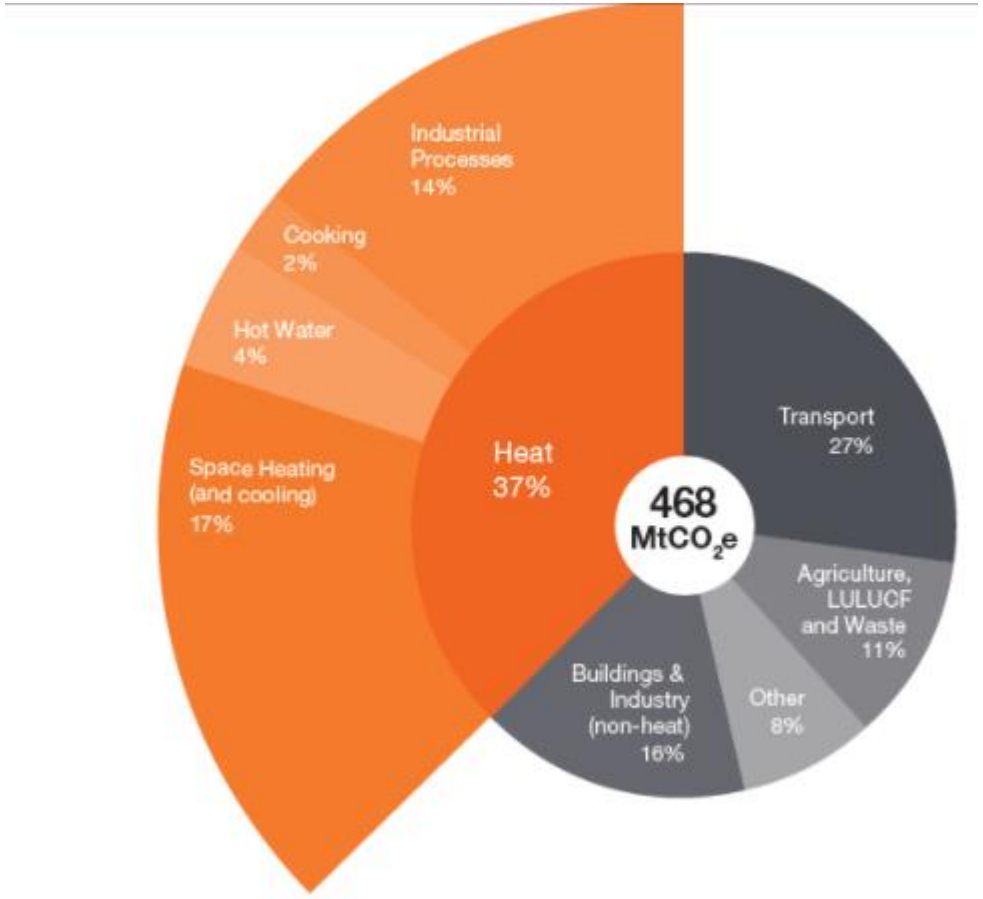
London Energy Efficiency Fund

EUROPEAN UNION
Investing in Your Future
European Regional Development Fund 2007-13

ENFIELD Council

The challenge we all face

- UK Government commitment to reach net zero carbon by 2050
- **Enfield Council aims to be carbon neutral by 2030 (organisation), with a goal of the borough being carbon neutral by 2040.**
- In 2019, in Greater London, the equivalent of between 3,600 to 4,100 deaths were estimated to be attributable to human-made air pollution (PM2.5).
- Volatile / rising energy costs and fuel poverty. Reliance on imported fossil fuels, especially in current energy market climate.
- Heat networks rollout forecast to increase from current 3% to 18-20% by 2050 to achieve net-zero (CCC). Regulation is coming 2025, with mandatory heat network zones (3 years)



What is Energetik?

100% owned by Enfield Council, Energetik is a private limited company with proven industry experience in delivering heat networks. Energetik are building low-carbon heat networks to serve tens of thousands of homes and businesses in north London.

Very low carbon heat networks built to a high specification, and to expand

Established to provide better value energy that's reliable and environmentally friendly

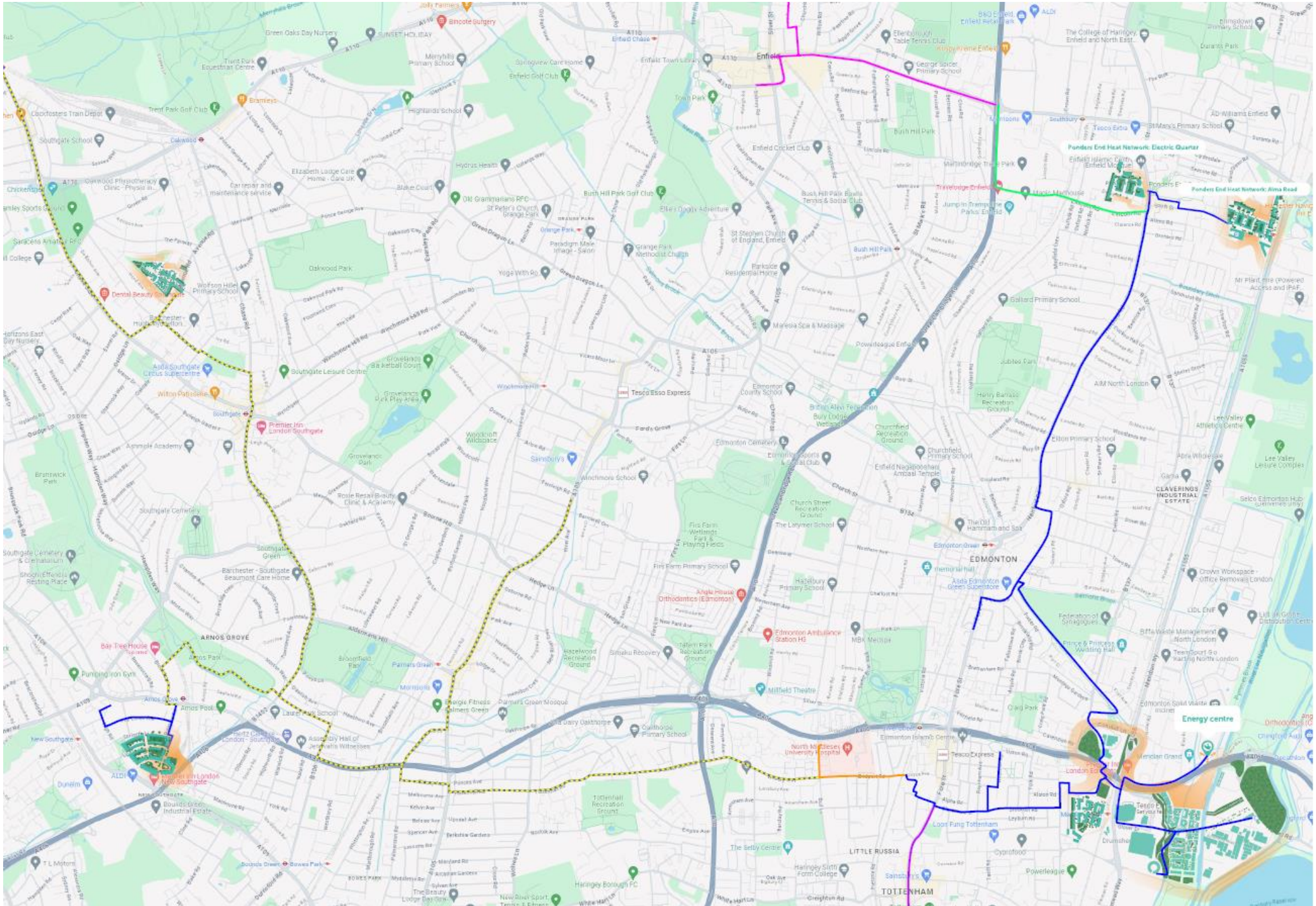
Heat network benefits - general

- **Energetik has responsibility to source supplies to provide hot water, not you**
- **Fuel Agnostic** – any suitable economical and sustainable heat source over the next 80 – 100 years
- **Future proof** – once pipes are in, they last 80+ years in the ground
- Can make use of **lowest cost, lowest carbon, lowest regret** heat sources and can easily adapt as technology changes/improves
- **Tried and tested** technology – extensively used in Scandinavia for over 50 years
- **Safer** as there's no local gas:
  - No carbon monoxide risk
  - No inherent fire risk
- **Cleaner** – no local gas boilers = no NOx

The Meridian Water Heat Network

- Up to 60MW low carbon waste heat supply from NLWA once complete (est. 2027)
- 6km of initial pipework (phase 1)
- Capacity to supply up to 100,000 homes with heat / hot water from waste heat
- First homes at Meridian Water online in September 2023
- Waste heat means no new energy production i.e.
  - electricity to run a heat pumps
  - gas to run a boilers

energetik



Key

Installed/under construction

2025

2026

2027

Planned route (subject to funding being secured)

Our Heat Supply- Waste Heat

- Heat produced as a by-product from a different/separate process
  - waste management facilities disposing of domestic/commercial waste

- If not captured and used (i.e. via a heat network) this valuable resource would be lost into the atmosphere

- Multiple heat sources can be connected to a heat network – not limited by one / other

Current Energy from Waste facility emitting heat (steam) to atmosphere

Substation Installation

Heat network pipework entering substation room

Electrical controls

Insulated pipework

Connection process

Technical Survey

- Energetik attend school to survey and review technical installation requirements

Connection agreement

- School & Energetik agree connection terms, fees, timescales etc.

Planning & Installation

- Energetik apply for planning permission, permits etc., procure and project manage installation & connection (usually during school holiday periods)

Heat tariff – how it changes / protects connected customers

- The **Availability Charge** is updated annually - no more than the change in the Consumer Price Index (CPI) for the previous calendar year.
- The **Unit Charge** is updated annually – by no more than the change in the retail gas component of CPI for the calendar year.
- The tariff is set and fixed from the **1st April to 31st March** each year.

Cost Comparison 2024

- Example based on 400 kW capacity connection

Gas Boiler	Cost per annum	Energetik Costs
New Boiler 2 x 400 kW: Cost installed: £48,000 **Life: 12 years**	£4,000	Charge an availability charge of **£25.00 per kW** that covers the supply of hot water to the school
Servicing/maintenance:	£2,000	
Standing charge (gas) - £9.86 per day	£3,600	
CCL	£2,800	
Cost per year	£12,400	
Cost per kW	**£31.00**	
Consumption costs:	9p/kWh	
Boiler Efficiency 85% so hot water cost (9p divided by 0.85)	**10.6p/kWh**	**5.5p/kWh**

Cost to Connect

- Depends on distance/location from network
- Depends on capacity of connection requested

Phase 4 of the Public Sector Decarbonisation scheme

Was Launched on 23rd September 2024

What are the Benefits

- Cost efficiency — low up front costs with 12% contribution
- Enhanced funding — access to significant grant
- Energy savings — Reduced Energy Bill
- Improve performance — Enhance reliability
- Compliance — future proof buildings
- Carbon — Decarbonised heat

Enfield are looking to make a consortium application to the scheme

That Application will include public sector buildings and MATs

To that end a measure of commitment will be required. There would be three stages of commitment seen in the evaluation process by the administrator of the scheme in the following ways

Stage 1 – Non Committal, but supportive

- Letter from MATs confirming commitment in relation to the application and supporting objectives
- Point of contact within MAT
- Provision of energy data and by default carbon emissions baseline (1 year gas bills)

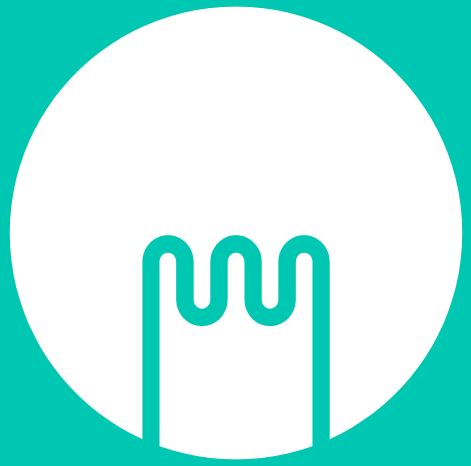
Schools we have particular interest in engaging with because of location to network

- Oasis
- Bishops Stopford
- Suffolk
- ST Matthews
- woodpecker]
- Aim
- Alma primary
- Houndsfield
- Galliard
- Wilbury
- St Edmunds
- Eldon
- College of NE London Enfiled & Harriengey
- Kingfisher
- Heron Hall
- ST John and St James
- Kingsmead
- Hazlewood
- The Latymer
- Edmonton County

Contacts

Rob.Callaghan@energetik.london

Stephen.Diver@energetik.london



Thank you