Chirpy Heat

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A different environment

The New Energy Crises – what price rises and regulation mean for the sector and what can be done about it

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New Energy Crises

Energy bills are rising most sharply, but price increases are occurring across the board. The consequence will be a fall in living standards over the coming fiscal year of 2.2%, a drop not seen since records began in the 1950s.

The Fuel Bank Foundation…estimates that people paying for energy as they use it will get a monthly bill in January 2023 which will be £138, or 76%, higher than a year earlier.

The Economist

Queen's Speech 2022 – Energy Security Bill

"Appointing Ofgem as the new regulator for heat networks, ensuring consumers get a fair price and a reliable supply of heat"

'Ten-year energy crisis' will do more than Cop26 for drive to net zero

The Sunday Times

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Three parts

- Update on heat regulation and why it matters
- Energy costs
- What can be done

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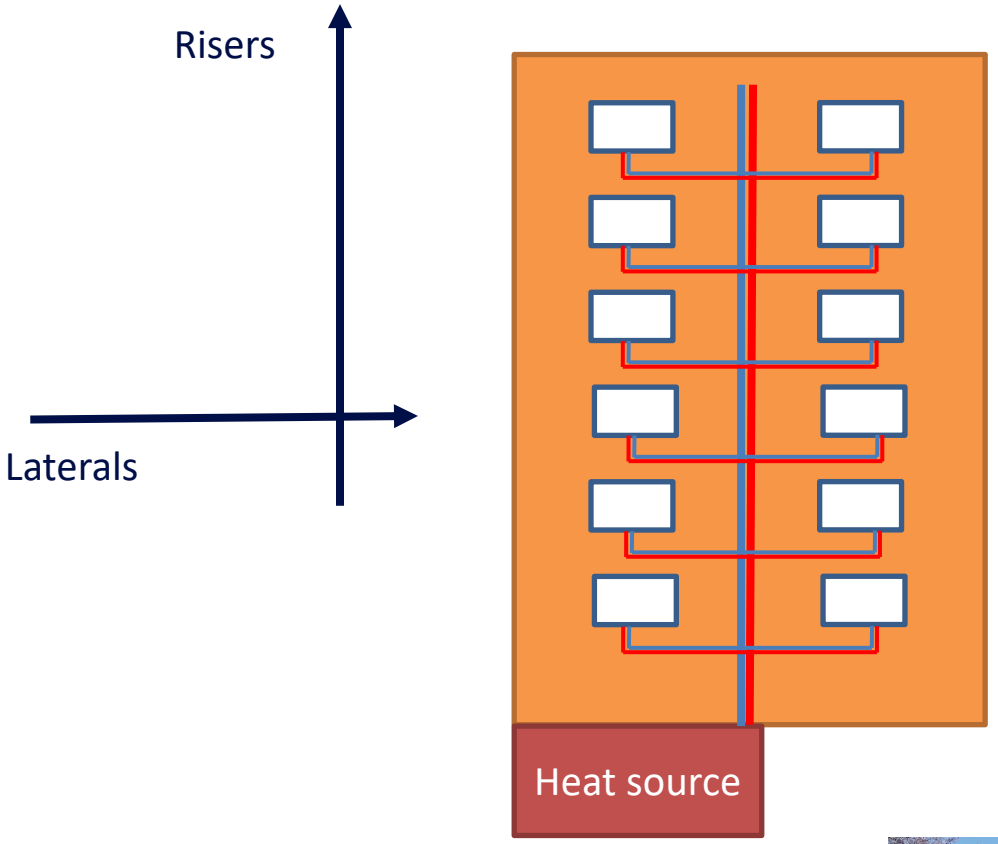
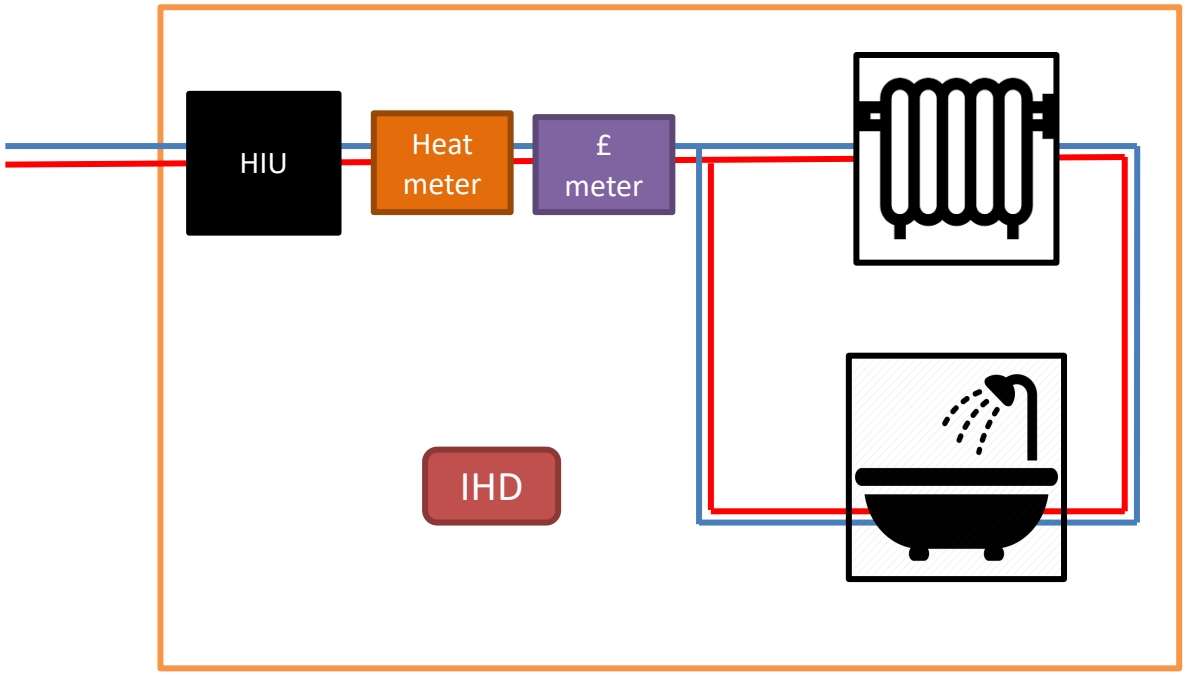
So what is a heat network?

2. Distribution pipework

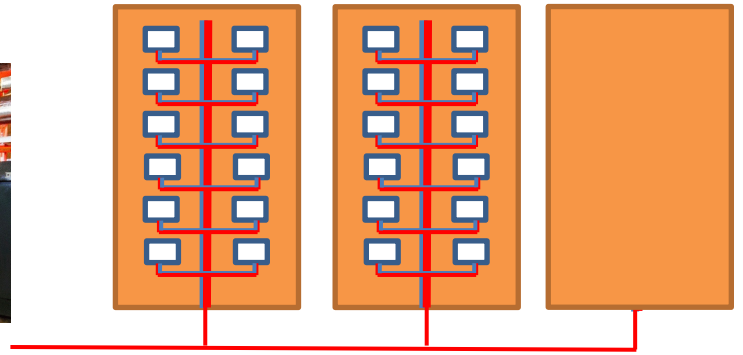


3. Delivery pipework



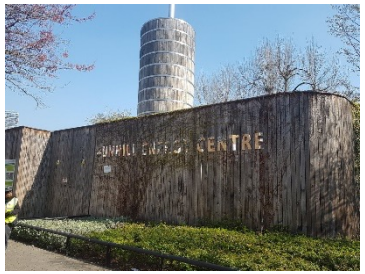
Residential or commercial

4. District heating



1. Heat Source

Plant room or energy centre



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The promise of low carbon, low cost and low hassle.....

- **Low carbon**: flexible heat sources - gas, biomass, heat pump, energy from waste, waste heat
- **Low cost:** CMA report says heat networks cost less than gas/electricity on average.
- **Low hassle:** should be easier for landlords to manage:
  - no gas safety checks
  - easier access (plant room, external HIU's)

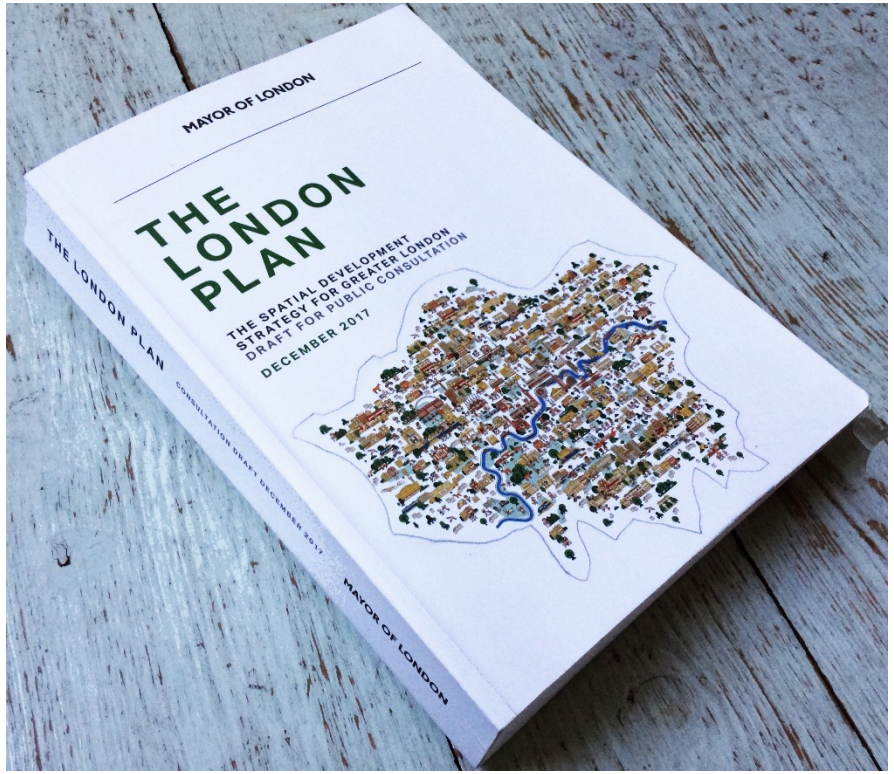
Heat networks as a policy pillar

Clean Growth Strategy

- 2% of homes are currently on heat networks
- To rise to 18% to meet zero carbon targets

Promoted via local planning:

- London Plan: have to justify why no heat network on new developments.
- Other cities following suit (e.g. Bristol, Brighton, Leeds, Manchester)
- Heat zones now likely to be introduced



Happened to sector....

- Housing Associations are big heat network operators but heat networks are a small part of what they do - **less than 10% of stock**
- Become **'accidental energy suppliers'** through introduction of individual metering and billing
- **Reactive approach** to heat network management and metering & billing:
  - Poor supply chain
  - Limited internal knowledge & experience
  - Largely taken what they've been given by developers
  - Pick & mix of technologies and suppliers
  - Losses and problems hidden until they reach scale or importance


INSIDE HOUSING

CORONAVIRUS FINANCE DEVELOPMENT REGULATION MORE TOPICS

NEWS IH LIVE COMMENT INSIGHT NEWSLETTERS

Housing association criticised after tenants overcharged for low-carbon heating

NEWS 13.04.21 7:00 AM BY LUCIE HEATH

A G15 landlord has been criticised by tenants and campaigners after residents in one of its blocks were hit with huge costs for a new low-carbon heating system that left some having to move temporarily out of their homes.

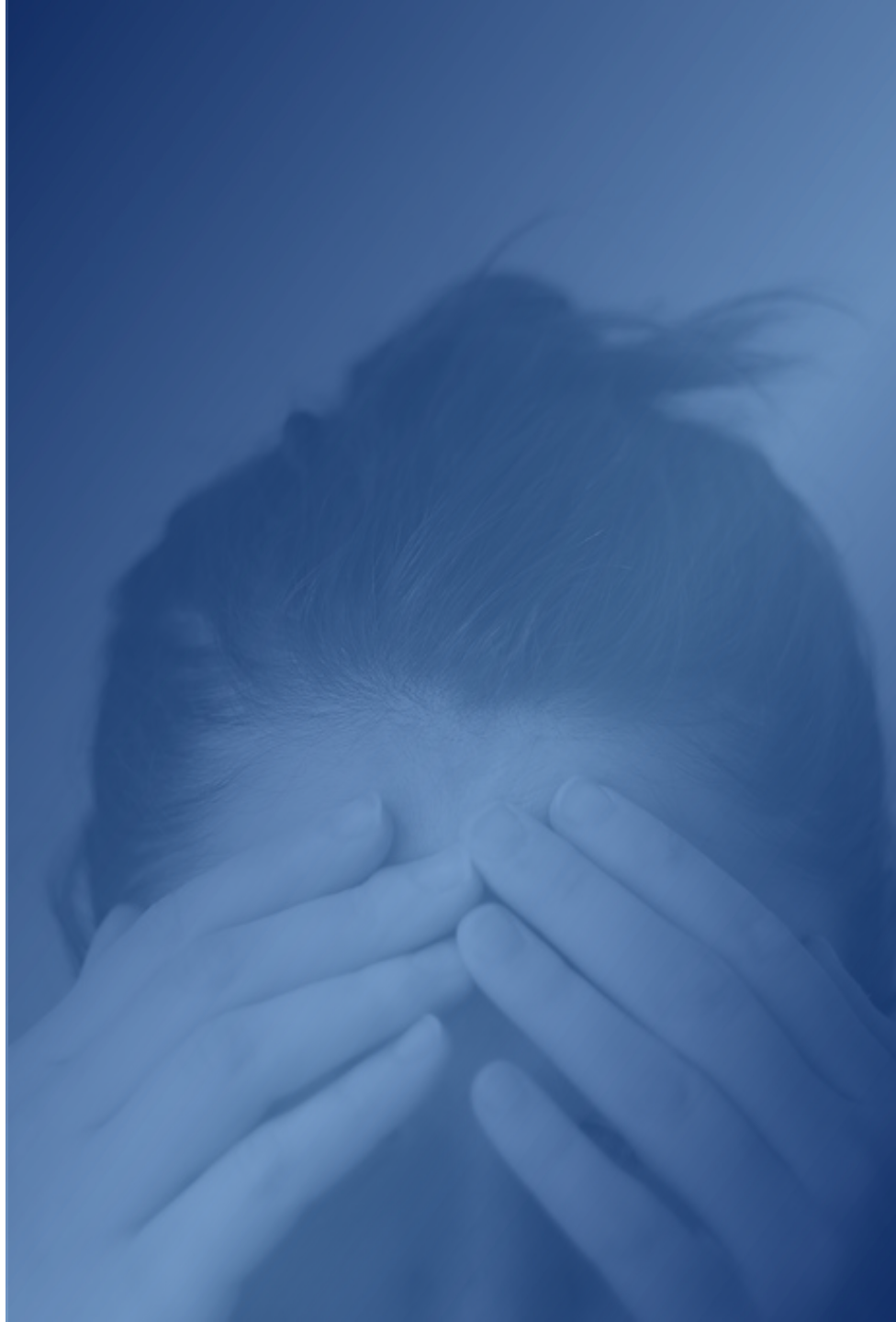

'Massive hardship': Tenants in Poplar charged four times national average for their heating

Hannah Somerville

Published: 7:00 AM March 3, 2020 Updated: 8:57 AM October 14, 2020

What happens in practice?

1. Badly designed
2. Poor commissioning and hand over
3. Complex management
4. Poor performance: efficiency & reliability
5. High customer and landlord costs
6. Customer complaints
7. Management headache!



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4 main challenges:

1. Regulation

- Metering & Billing Regulation
- Consumer protection on its way
- Decarbonisation

2. Financial

- High cost to both landlord and tenant
- Capital Expenditure
- Tariffs: under-recovery & debt risk
- Repairs & maintenance costs
- Management

Management & responsibility

- Complex management
- Who's involved?
- Cuts across many teams
- Multiple contractors
- Duplication or missed tasks

Poor customer service

- Poor performance: efficiency & reliability
- High levels of complaints

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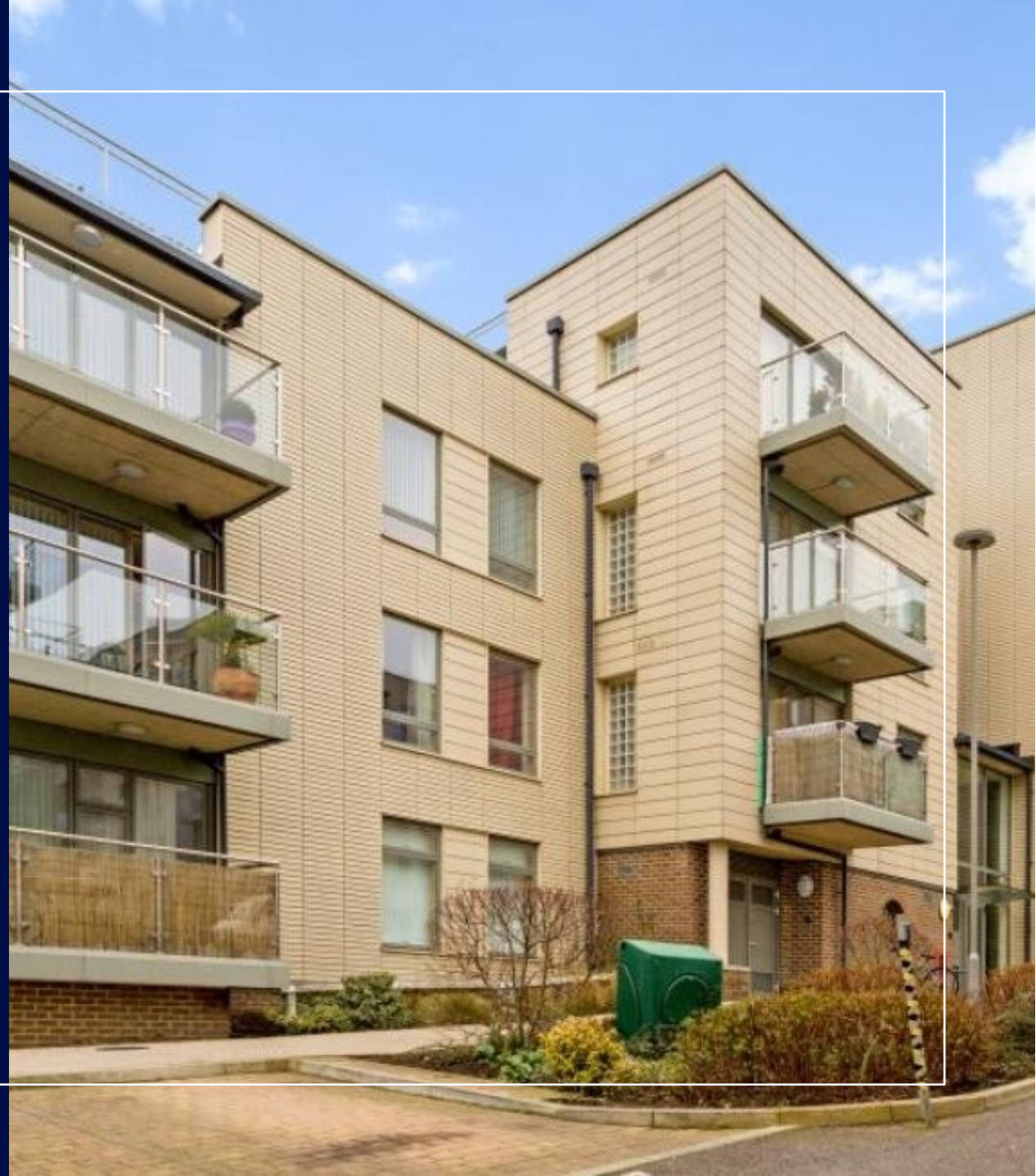
Policy overview and updates



The current landscape

1. **Current Regulation:** Heat Network Metering & Billing Regulations (2020 amendment)

2. **Forthcoming Regulation:** Heat Network Market Framework, bringing heat networks in line with other utilities. UPDATE: IN QUEENS SPEACH

Establishing statutory regulation and customer protection for all heat network customers

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Metering & Billing Regs

1. **Duty to notify** the OPSS of all your heat network every 4 years

2. **On-going obligations in relation to meters,** ensuring they continuously operate, are properly maintained and are periodically checked for errors.

3. **Billing** must be accurate and based on actual consumption with a clear explanation of the information contained in a bill, including how the bill was calculated and specifying fixed and variable charges

4. **Duty to install meters** (or heat cost allocators - HCAs) where feasible, to accurately measure, memorise and display customer consumption. Must also install temperature control and building-level meters

Cost-effectiveness tool (CET)

- Relaunched in November 2020
- By 27th November 2021: all cost-effectiveness determinations must now be complete
- By 1st September 2022: all installs must be complete, and schemes must be fully compliant
- Of nearly 4000 properties assessed 74% required heat metering installation

Future Regulation: Heat Network Market Framework

- Full market regulation 2023-24 akin to gas and electricity (but a lot more complicated!)
- Ofgem confirmed as the regulator
- Customer protection at heart: transparency, pricing, quality of service and technical standards
- Will also address heat network decarbonization
- Sector no longer ‘accidental energy supplier’ they will become fully regulated energy suppliers.
- Sanctions – third party scheme management and unlimited fines

Three actions today

1. Ensure OPSS return completed.
2. Undertake review of all schemes (November 2021).
3. Carry out a regulation readiness review.

Energy Costs...and action

- Heat Networks – a particular challenge

- Non Heat networks – gas and electric

Energy Costs...and action

Heat Networks – a particular challenge

- Gas prices rises from 157% to 550%
- If tariffs not changed, direct cost to HA. One – typical case - losing circa £150-200 a property per year (at current prices) – with 3000 individually metered properties = under-recovering £450k/year
- However, scheme efficiency is critical. Many 'legacy' individually metered networks – i.e. those built from 2008-2019 have average efficiencies around 40-45%. Example (medium user bill):
  - 26% efficiency = £2,137.60
  - 60% efficiency = £914.40
- Residents are now challenging the costs they are charged

Energy Costs...and action

Heat Networks – actions

- Complete a tariff review – need to ensure ‘transparency and accuracy’ to be compliant.
- Metering & Billing charges: allow competitive procurement by specifying transferable protocol meters. Potential saving £25-40/property/year by doing this.
- Undertake an optimization study to identify the measures to improve efficiency. Generally, find 10-20% heat network improvements on poorly performing schemes.
- Put in data systems to measure efficiency.
- Identify projects Heat Network Efficiency Scheme Demonstrator (Phase one 2021/22 and phase two being planned – opimisation and investment.

Energy Costs...and action

Non Heat networks – gas and electric

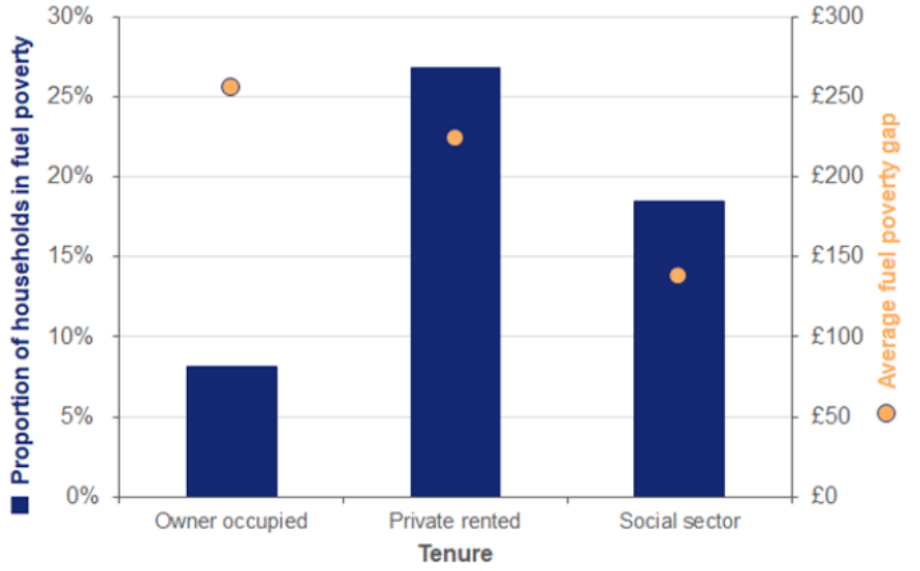
2019

- A £1301 energy bill put households in fuel poverty
- 13% Households in fuel poverty

2022

- 50 % increase in energy costs
- £1971 average bill
- 50% increase in fuel poverty
- October increase could go up to £2900

Figure 3.14: The proportion of households in fuel poverty was highest for private renters at 26.8 per cent whilst owner occupiers have the highest average gap at £255



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Energy Costs...and action

Non Heat networks – actions

- Strategy Vs funding
- Is Social Housing Decarbonisation Fund the solution?
- Yes but….its is worth less than £900 per property in the sector.
- Significant up-front costs
- Limited properties it can be installed in
- Competitive
- Underlines the need to get projects oven ready

Energy Costs...and action

Non Heat networks – actions

ECO programme of basic measures – lofts and cavities

- ECO 3 single measures (until October 2022?) ECO3 is projected to upgrade around a million homes supporting £3.6 billion of investment.
- ECO 4 multiple measures (from October 2022)
- Significant resources – one client has secured £4.5m in funding through ECO 3

Innovation Stream for ECO

- Photovoltaic – 40-50% funding

The above combined could reduce bills by £340 (September costs) and improve SAP rating by 10—15 points

Quick Action Plan

Heat Networks

- Makes sure you are compliant now and prepare for full compliance
- Undertake optimization and tariffs reviews

Non Heat networks – actions

- Undertake programme of assessments
- Get oven ready for SHDF
- Get an ECO programme in place - NOW

Summary

- Regulations and higher costs are here to stay
- Heat Networks are a significant challenge – legacy schemes and more are coming. There is significant regulation now and full regulation coming soon. Costs are being impacted by fuel prices and will be made worse by scheme efficiency.
- Non Heat networks – fuel costs rising and so is fuel poverty. More rises are coming. Funding is available now – focus on ECO first but prepare for SHDF as well.

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