



# Greening the housing stock

Housing and Homelessness Policy  
and Accountability Committee

14.11.23



# Background

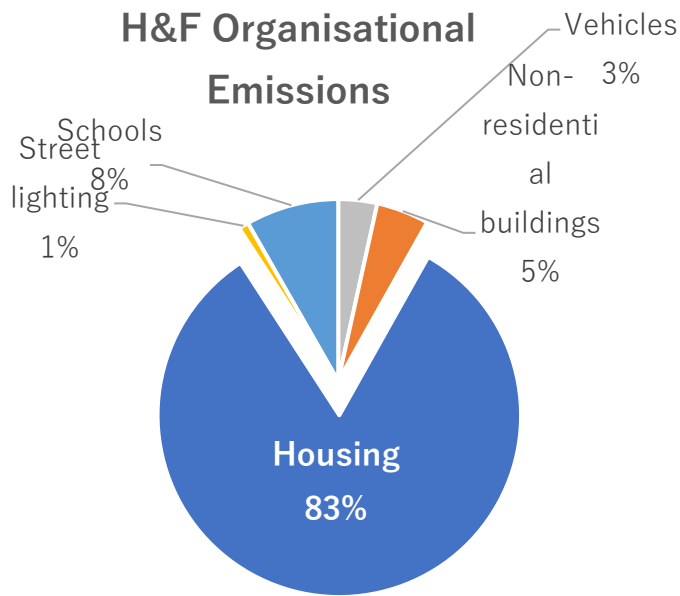
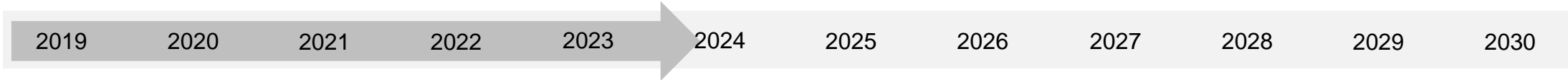
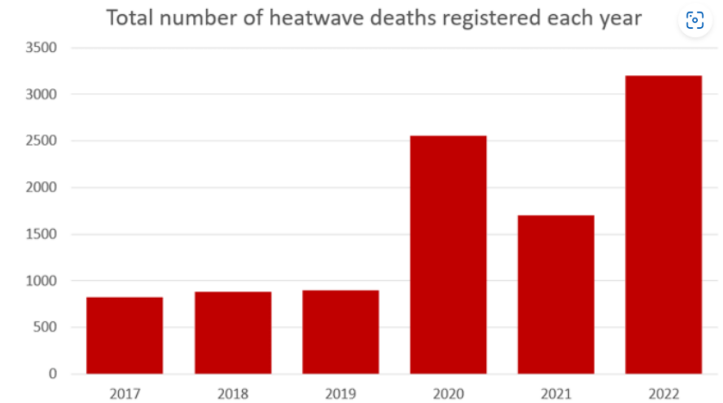


Figure 6 - Graphic demonstrating the government's fuel poverty targets for England



H&F's housing stock accounts for **over 3/4** of H&F's organisational carbon emissions

As of 2020 it is estimated that **13.2%** of households in England are fuel poor

Heat related deaths are **increasing** in the UK and around the world



# How will this impact council policy?

Drive **energy efficiency** of the building stock, considering a fabric first approach



How best to transition to **low carbon heating**

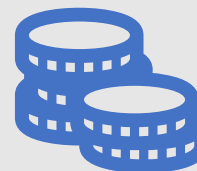


## Retrofit Strategy

Develop a plan to starting **adapting** the stock for a changing climate



A key enabler to support deliver the **fuel poverty strategy**



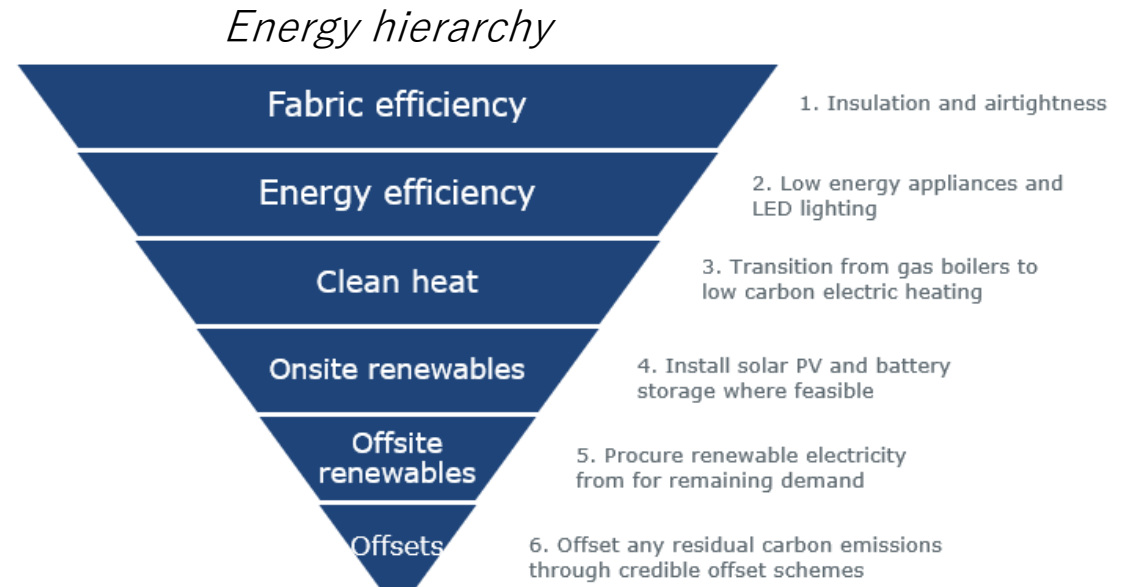


# Energy efficiency



**Fabric First** is an approach to retrofitting homes that aims to reduce demand for heat and power as far as possible, through insulation and airtightness combined with adequate ventilation.

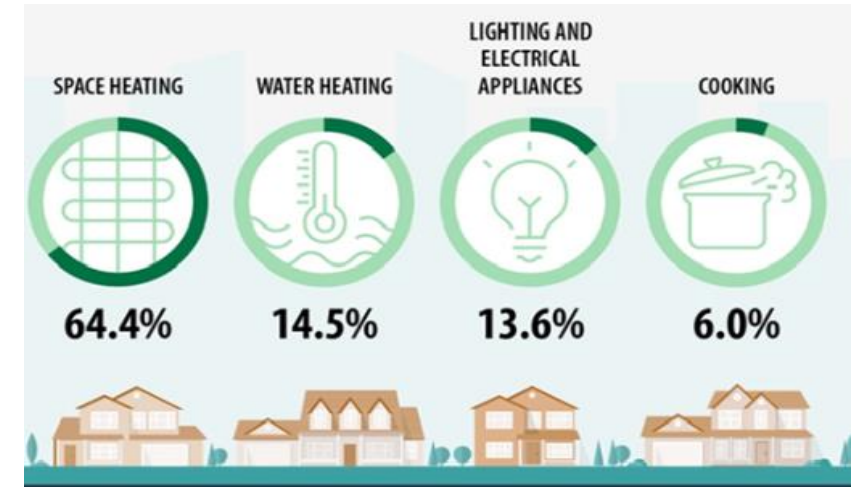
- Focus on reducing the heat demand of the building (over 60% of energy in a home is used for space heating).
- Reduces carbon and saves tenants energy bills, supporting fuel poverty.
- Once building is thermally efficient, it will be ready for low carbon heating.





# Low carbon heating

- Space heating and hot water account for 79% of emissions.
- Changing the heating source is necessary to decarbonise.
- Solutions: electrifying heat or sharing low carbon heat.
- Currently H&F housing is predominantly heated using gas.



Air source heat pump



Heat networks



# A fabric first policy

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Transitioning to low carbon heating accounts for 75% of the cost of decarbonization.



If not well insulated an electrically heated building will increase energy bills.



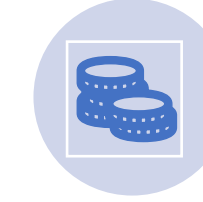
Air source heat pumps and district heating work most efficiently in well insulated buildings.



Fabric first will result in reduced emissions and support fuel poverty.



70% of H&Fs boilers do not reach the end of their useful for five years.



Government grant funding is largely focussed on fabric



# Clean Heat Masterplan

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## Lowest cost low carbon heat

H&F completed a heat masterplan with RBKC and the GLA in 2023. Study carried out economic modelling to ascertain the potential for heat networks in H&F and K&C.

- In most of H&F, heat networks, such as that on the new Civic Campus, are likely to be a **more cost-effective solution for low carbon heat** than individual heat pumps on each building.
- Areas of the borough with particularly high potential include:
  1. Area around Earls Court, including the West Ken estate (can be extended into RBKC)
  2. White City/ Shepherds Bush
  3. Hammersmith Town Centre.
- Many of the **larger H&F housing estates**, including White City, Bayonne, Edward Woods and Charecroft, are good candidates for heat networks using heat from sources such as air, ground, aquifer, river and sewers.
- H&F has won £120k funding from the GLA to carry out detailed design for a **low carbon heat network at Bayonne (aka Brecon) estate. Earls Court and OPDC also developing heat networks** which e.g. West Kensington, Gibbs Green, White City Estate could connect to in time.

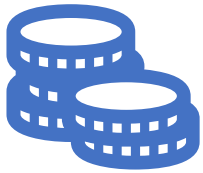


# How might this affect council policy?

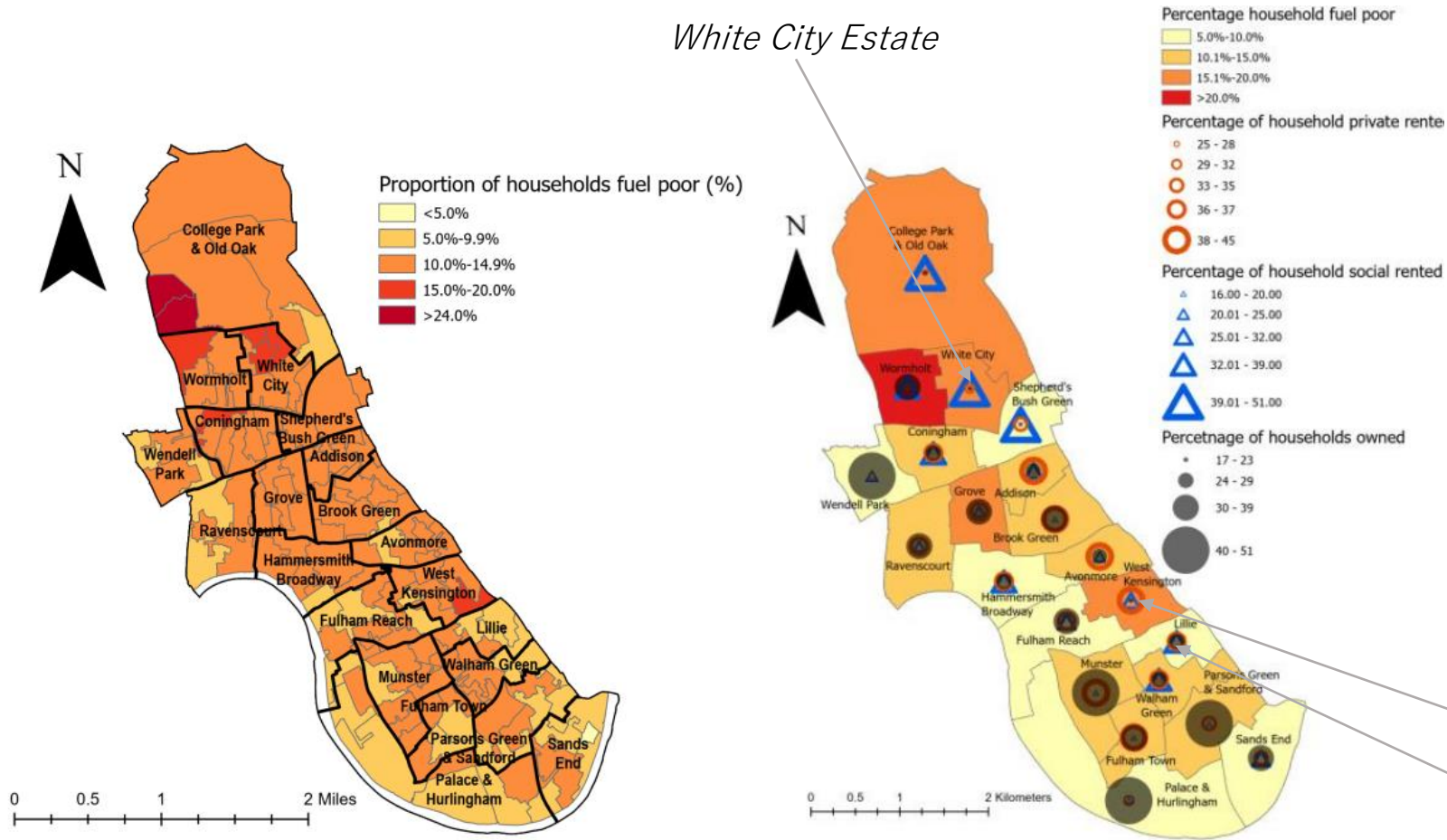
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- **Planning:** New planning powers as a heat zoning co-ordinator. H&F could mandate heat networks for major new developments in future and encourage larger buildings to connect to existing heat networks. High decarbonisation potential but would need resources and expertise in Planning team.
- **Timelines:** Implementing heat networks is a multi-year project.
- **Finance:** Even where they are the cheapest low carbon option, the cost of heat networks is still significant. H&F could invest in its own heat networks for council assets, or create concession agreements with private entities to design, build and operate networks.

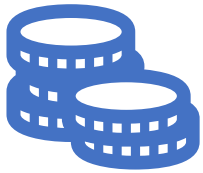




# Fuel Poverty in social housing

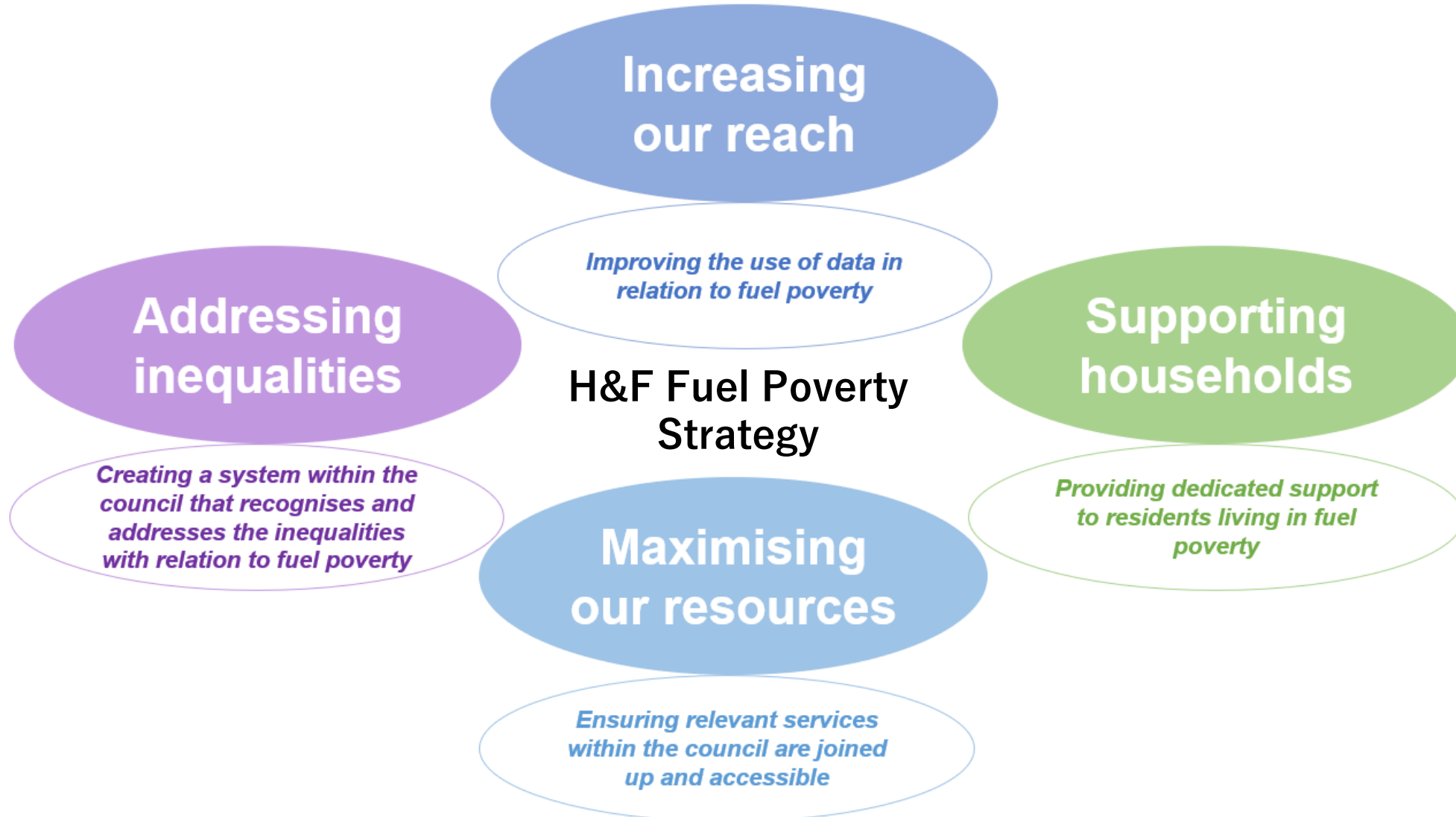


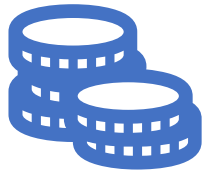
- **Social renters are more likely to be fuel poor than owners or private renters – this is demonstrated by a relationship between the proportion of social renters and fuel poverty by ward**
- The retrofit strategy needs to be implemented in a way that will support residents in getting out of fuel poverty, **working in tandem with the fuel poverty strategy**



# Fuel Poverty

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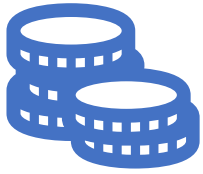
# Fuel Poverty Strategy

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## The next year in H&F

The publication of the Fuel Poverty Strategy is an indication of the drive to make change, and the need to take action in light of the energy price and cost of living crises. In the next year, we plan to:

1. Run an **H&F small energy efficiency measures scheme** that will empower residents to improve their own energy efficiency and achieve bill savings on their own terms.
2. **Increase the presence of fuel poverty support in the borough** by running energy advice and support sessions, coordinating with the Cost-of-Living team to provide holistic support to residents.
3. Work with external groups to **seek funding** to support community-based projects supporting residents in become more fuel secure.
4. **Expand promotion of available funding** to support retrofit and energy efficiency works.
5. Launch the **fuel poverty dataset** and begin to use this for targeting.
6. **Reach all homes** through leafletting and other broad campaigns.



# How retrofit supports this policy

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- Focussing on fabric will support the overall aims of the Fuel Poverty strategy by reducing energy bills.
- Utilise the **fuel poverty dataset** to prioritise areas that are most in need of energy efficiency within H&Fs stock.
- Focus on a neighbourhood approach to retrofit where homes of different tenure are upgraded in the same programme.
- The transition to low carbon heat must be carefully planned to ensure there is not an increase in fuel poverty.



# Adaptation

- Floods and record break temperatures are becoming more and more frequent. London seen an increase of 1.9 degrees since 1960.
- By adapting our homes to overheating, flooding, and drought risks as we retrofit, our residents and buildings will experience much lower risk to climate change impacts.
- Adaptation is an emerging priority for the industry



**Step 1:** incorporate adaptation into the capital delivery programme, considering upgrades on a case-by-case basis.

**Step 2:** establish better data, metrics and develop policy and implementation plan for the stock. Out of scope of the initial strategy.



# Development and adaptation

Lillie Road and Farm Lane have both achieved planning permission and are now out to tender for a construction partner. 42 and 31 new homes

## Over heating

- Designed to mitigate the risk of overheating.
- Low glazing to reduce the amount of solar gain during summer.
- Balconies provide shading to the flats below.

## Water

- SUDS - a combination of an attenuation tank and permeable paving.
- Surface water drainage systems will be able to accommodate storms up to the 1 in 100-year event.
- In Farm Lane, a blue roof on the main building, will assist with the interception and retention of precipitation, helping reduce the flow rate and volume of surface water runoff.

## Biodiversity

- The two schemes will increase biodiversity with native species planting, green roofs and vertical greening.
- The landscape design approach for the sites are for all surfaces to be permeable or planted.





# Summary

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Greening the housing stock is needed to reduce emissions, support with fuel poverty and adapt to a changing climate.

A retrofit strategy is being finalised and will address the steps needed to embed this in the organisation.

This will influence council policy in relation to 4 key areas:

1. **Energy efficiency** – prioritise upgrading the fabric of H&Fs housing.
2. **Low carbon heating** – establishing how to transition the stock to low carbon heating.
3. **Fuel Poverty** – supporting the council's commitment to reduce fuel poverty.
4. **Adaptation** – ensuring buildings are adapted for a changing climate.



**Thank you**