

Notting Dale
Heat Network

1 Renewable energy at Lancaster West

What is renewable energy?

Lancaster West is switching to renewable energy to provide heating and hot water. Renewable energy uses sources that can be naturally replenished by the earth, like wind or solar energy.

Renewable energy at Lancaster West

Two types of renewable energy will be used at Lancaster West to generate electricity and provide heating and hot water across the Estate.

1 Solar Photovoltaic Panels



Most buildings at Lancaster West can host solar panels on the rooftop. These will be able to generate electricity for communal use.

2 Air Source Heat Pumps



A large air source heat pump will be used to supply heating and hot water to homes. It uses green electricity to draw heat from air.

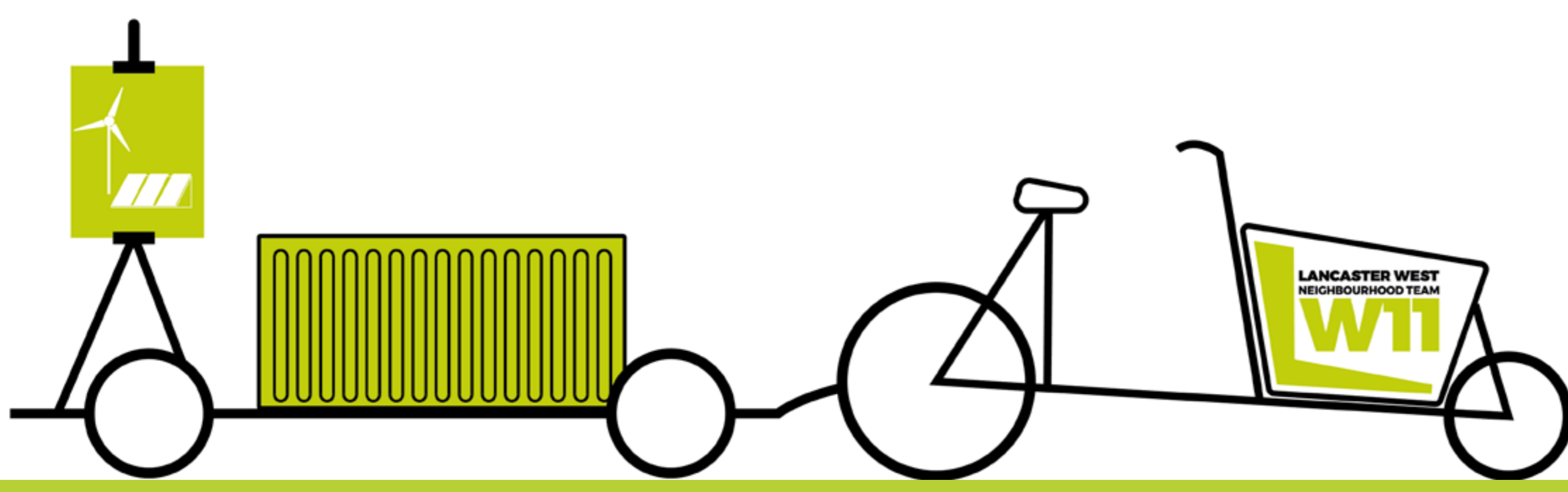
Myth Buster
Renewable energy isn't free to make! We have to buy green electricity and maintain equipment.

Why go for renewable heating?

Different types of heating were considered for Lancaster West. Here are some of the options reviewed:

Resident Input
84% of residents who responded to a survey in Dec 2021 support the heat network.

	Pro	Con
Gas Boilers	Gas is currently the cheapest fuel for heating	New gas boilers are not allowed in UK from 2035
Electric Heaters	Are easy to use & install Can use green electricity	Running costs are high & quality of heating poor
Individual Air Source Heat Pump	Air source heat pumps use less electricity than electric radiators	Major installation needed and doesn't work well for flats
Heat Network	Green and more affordable than electric radiators or individual air source heat pumps	New equipment will need to be installed in homes. Heat prices still depend on electric prices

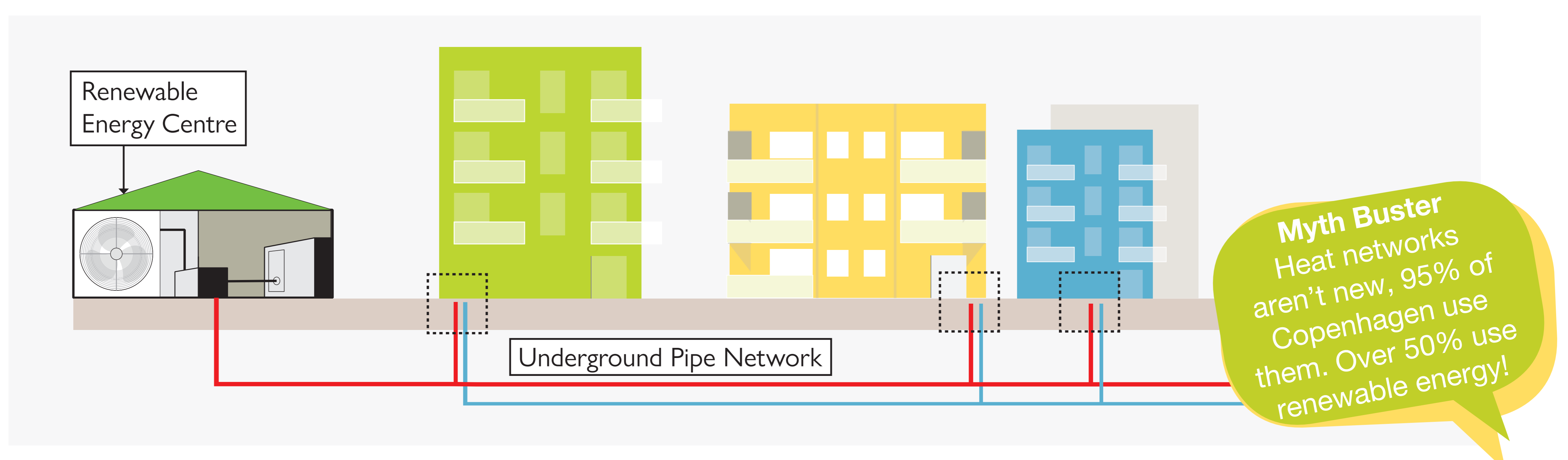


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2 What is a heat network?

An Introduction

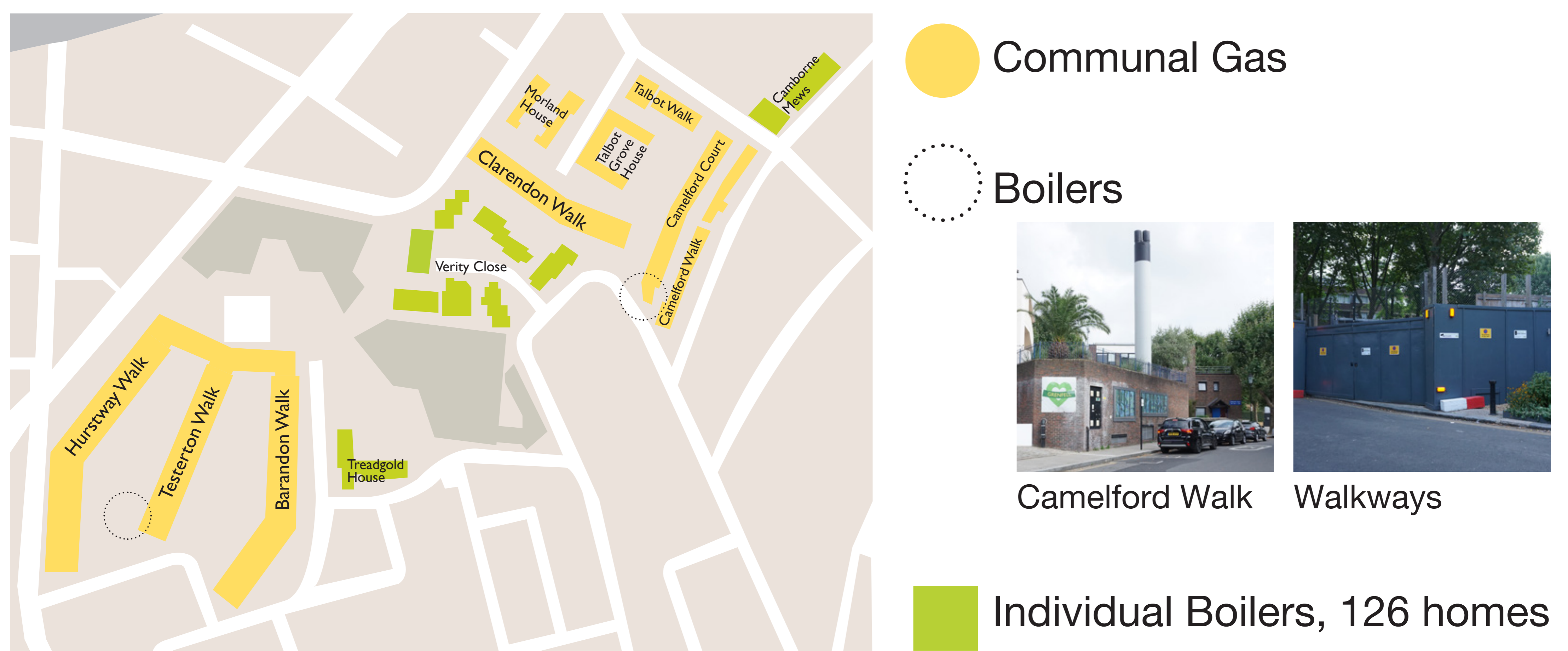
A heat network is large scale plumbing. Heating and hot water is supplied from a central energy centre to several buildings.



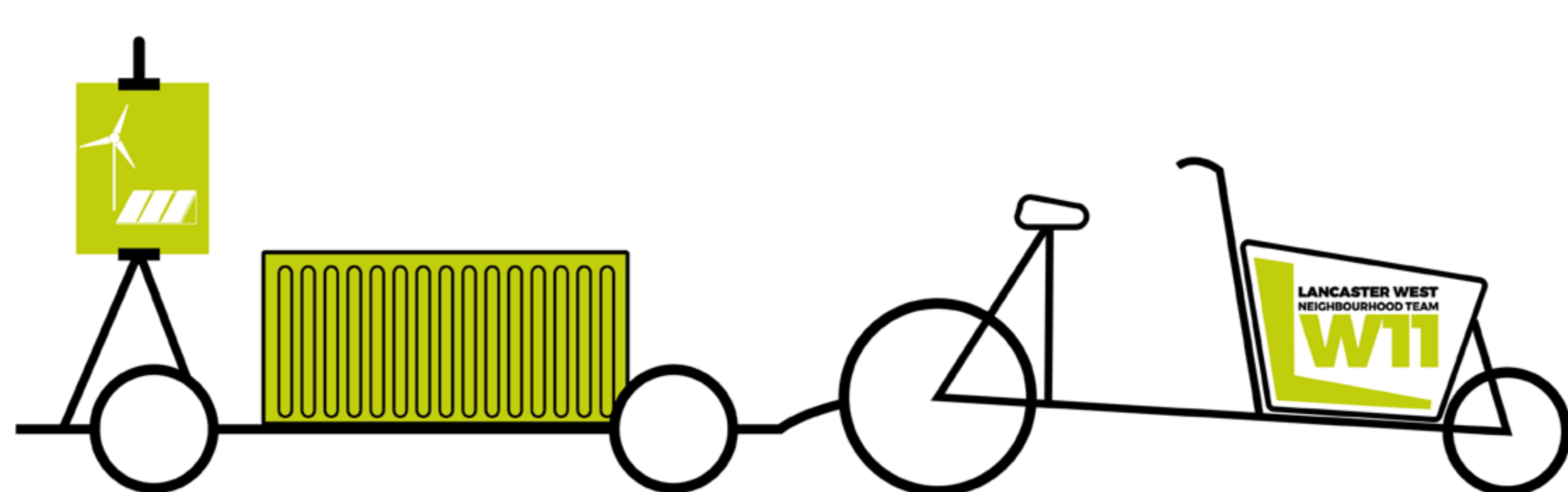
There are many existing heat networks across London, and more are being built to make homes more environmentally friendly.

Replacing Gas

The heat network at Lancaster West will replace 2 existing gas boilers and up to 126 individual gas combi-boilers. This will enable Lancaster West to stop using gas and go carbon-neutral by 2030, ahead of the UK government phasing out gas boilers from 2035.



Residents will be offered a new electric cooker to replace their existing gas cooker. This will be free of charge. These cookers are safer and more environmentally friendly.

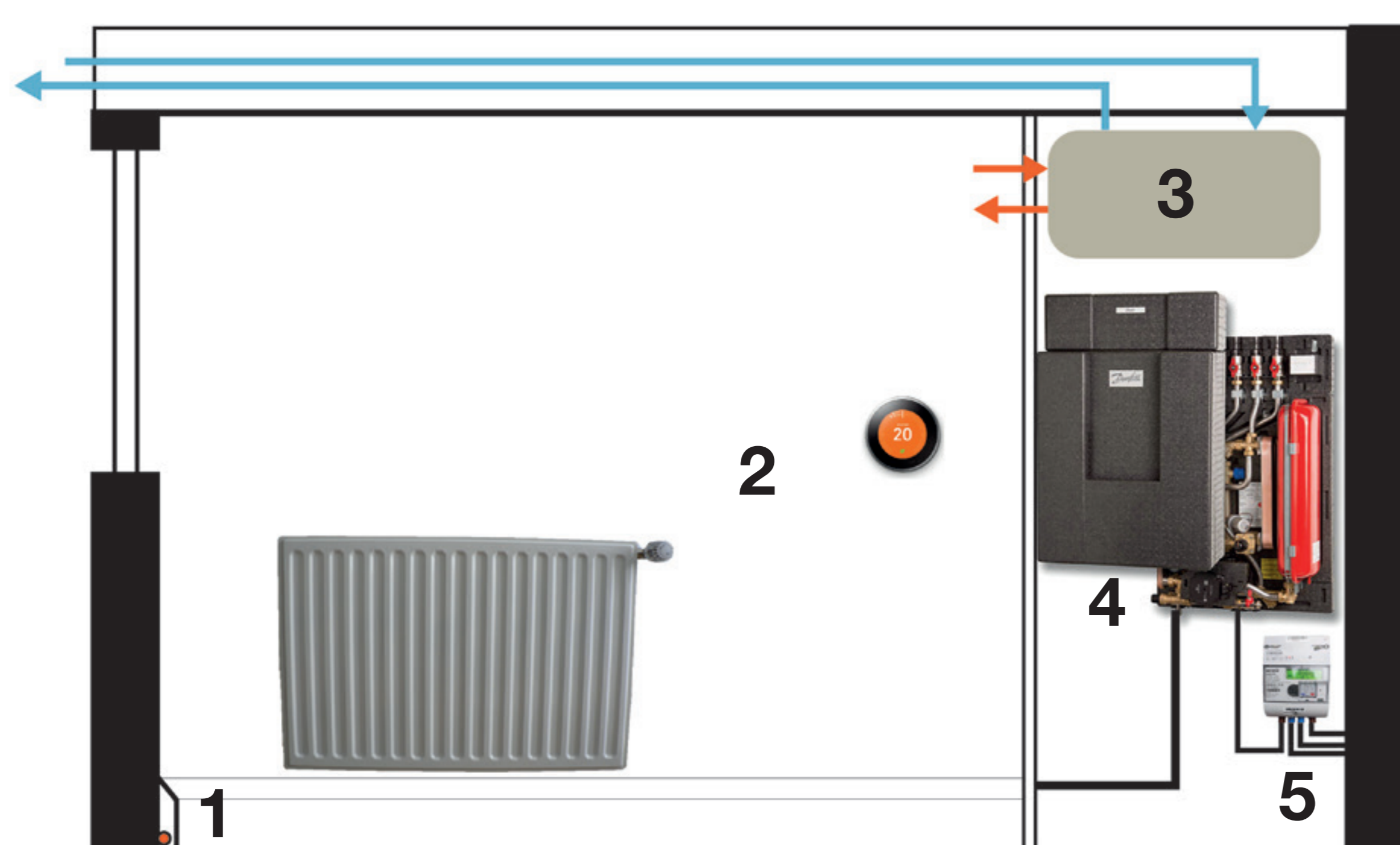


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3 How will my heating & hot water change?

What will be installed?

When homes are refurbished a new heating system will be installed in your home. It will include:



- 1 New Pipework:** which will be concealed where possible.
- 2 New Radiators and Thermostatic Controls**
- 3 Mechanical Ventilation and Heat Recovery (MVHR):** will bring in fresh air without losing heat. This is more energy efficient than opening a window.
- 4 Heat Interface Unit:** this box is a similar size to a boiler. It is the bridge between the heat network and your home.
- 5 Heat Meter:** will measure the heat you use.

What else will change?

Heat quality & control

Your home should need 25% less heating after its refurbishment.

You will have individual heat controls in your home, all year round.

New customer protections will ensure heat quality and service. The heat network will be registered with independent consumer champion, The Heat Trust.

Heating payments

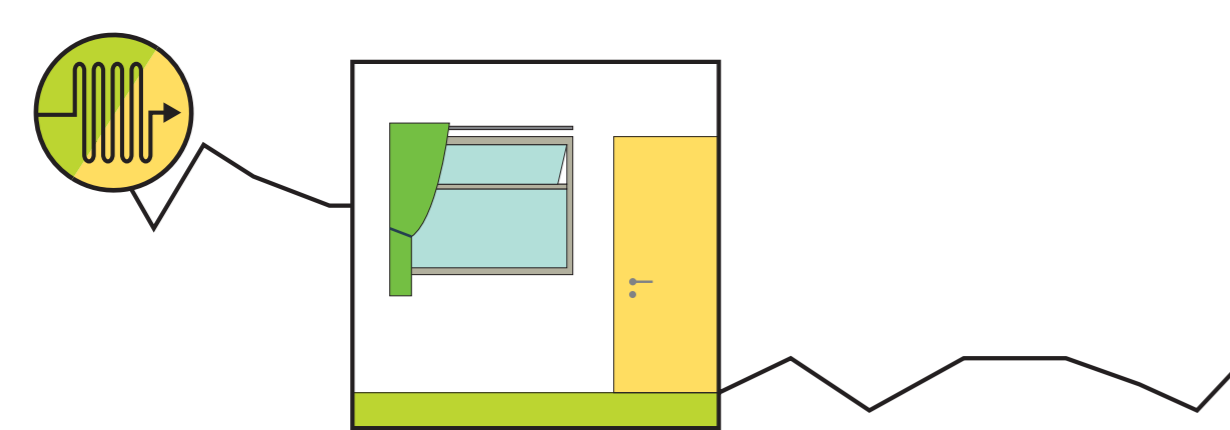
After the refurbishment of your block, residents will pay for heat and hot water used in their home.

Heat prices will be set annually from 2024, in line with inflation.

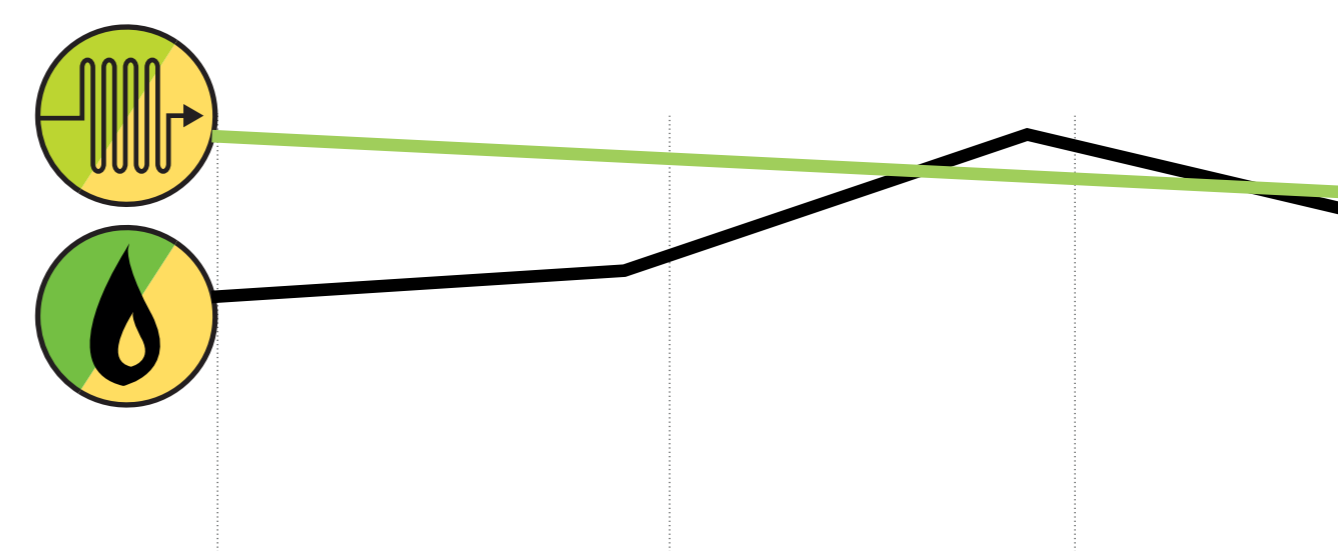
You will pay a standing charge and usage charge to the Council for the heat and hot water used in your home. You will not need a gas supplier.

What is the resident price promise?

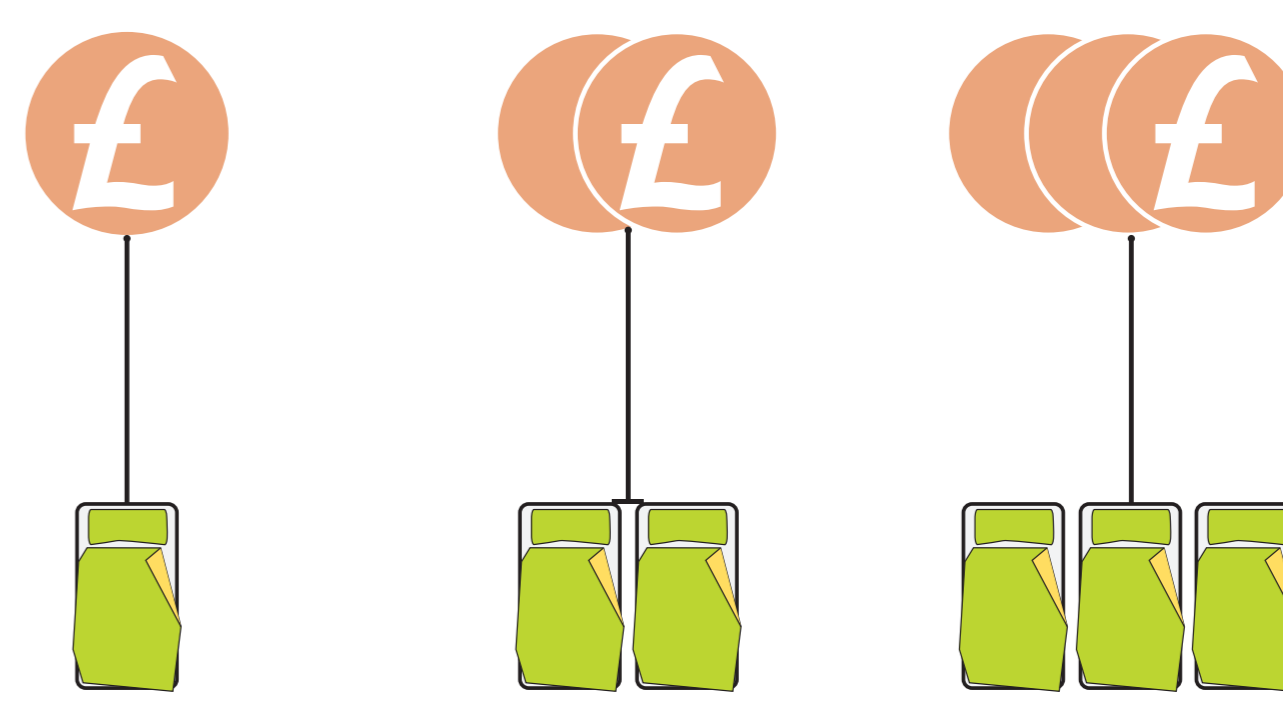
The resident price promise has been co-designed, to support residents through the change to renewable heating and heat payments.



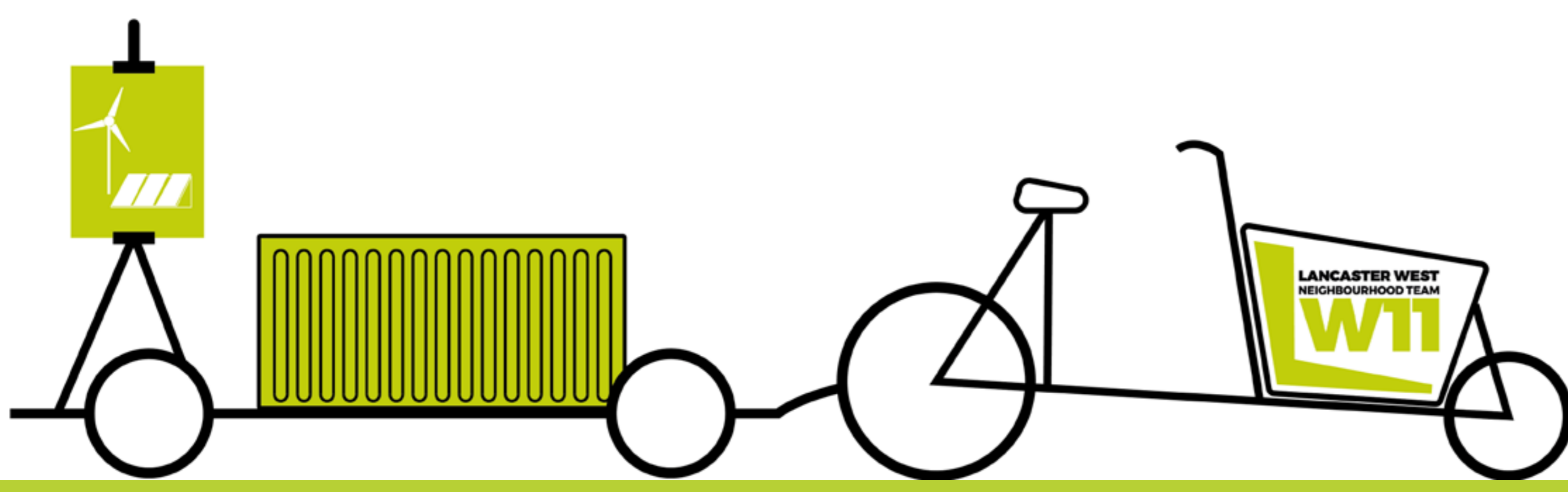
Pay for usage: The refurbishment of LancWest is forecast to reduce the level of heat you need to keep your property warm by around 25%.



Heat usage charge: Up to 2030 you will pay the cheaper energy cost, either the cost of providing renewable heat or using gas.



A fair standing charge: is based on property size. Leaseholders will see this charge, but Tenants will not as rent already includes these costs.



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4 The renewable energy centre

What will be inside the energy centre?

1. Air Source Heat Pump

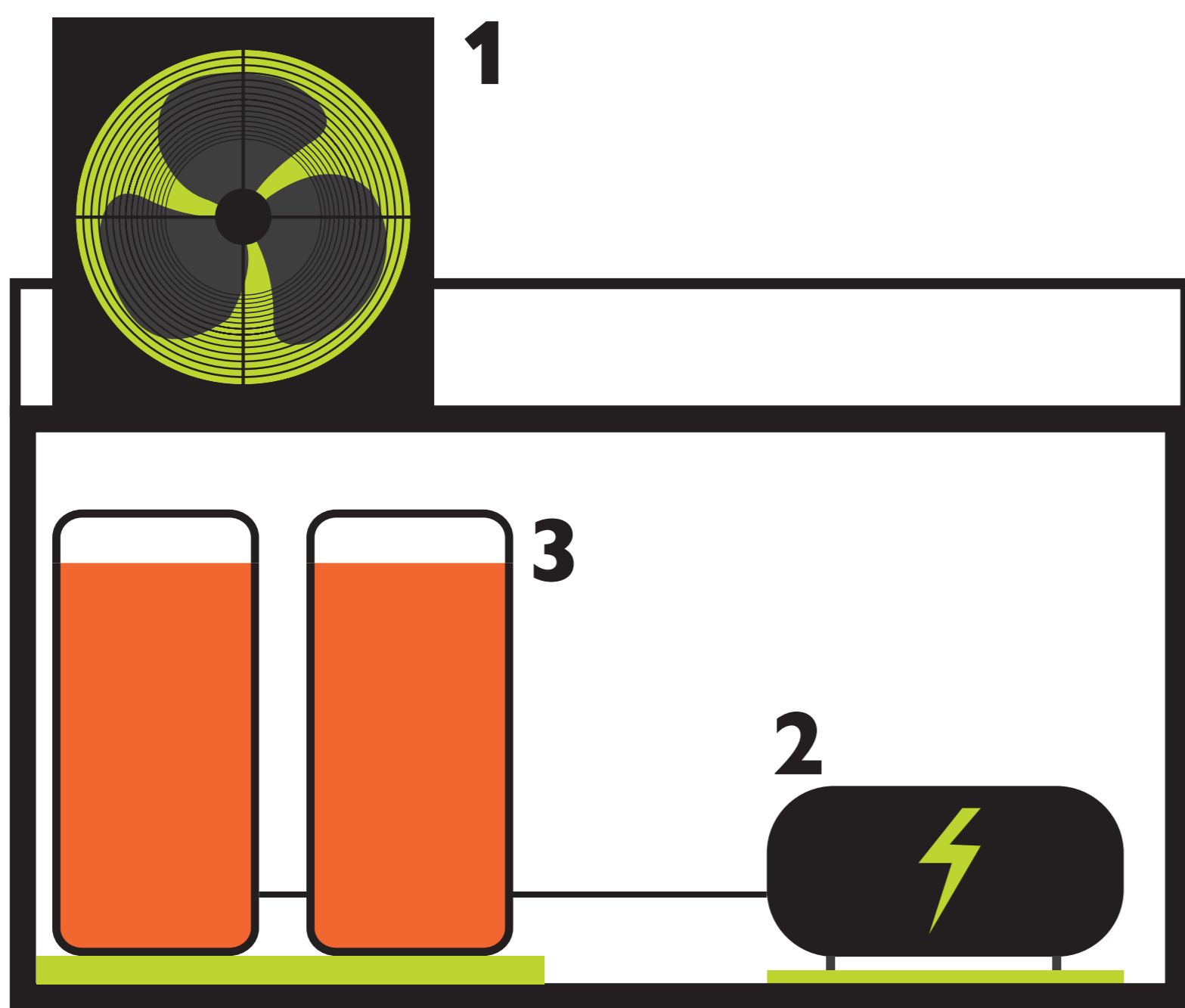
Converts heat in the air into heating for your home using electricity and a refrigerant.

2. An Electric Boiler

This will provide heat to the estate when the Air Source Heat Pump needs to be maintained.

3. Thermal Stores

These water batteries store hot water at the energy centre, to top-up the heating supply when required. They are heated at night, making use of cheaper night-time electricity.



Will there be any local impact?

The new renewable energy centre will reduce local carbon emissions and improve air quality in the area. There will be some disruption caused by constructing the energy centre, but long-term impacts will be minimal:



Visual

With the removal of gas boilers from Camelford Walk, the existing chimney stack can also be removed.



Vibrations

Fixing the air source heat pump to the leisure centre means there will be no vibrations affecting homes.



Sound

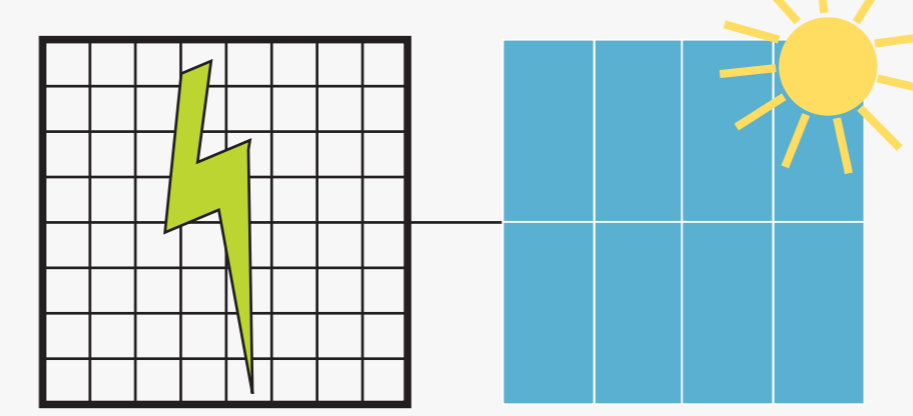
Air source heat pumps will be installed on the leisure centre roof and have noise barriers installed to minimise noise impact on homes.

How reliable is renewable heating?

The new renewable heat network has lots of back-up systems built in. The current communal heat network at Lancaster West Estate has none.

We are aiming to make the UK's most reliable heat network at Notting Dale, including the energy source, heat source and pipework.

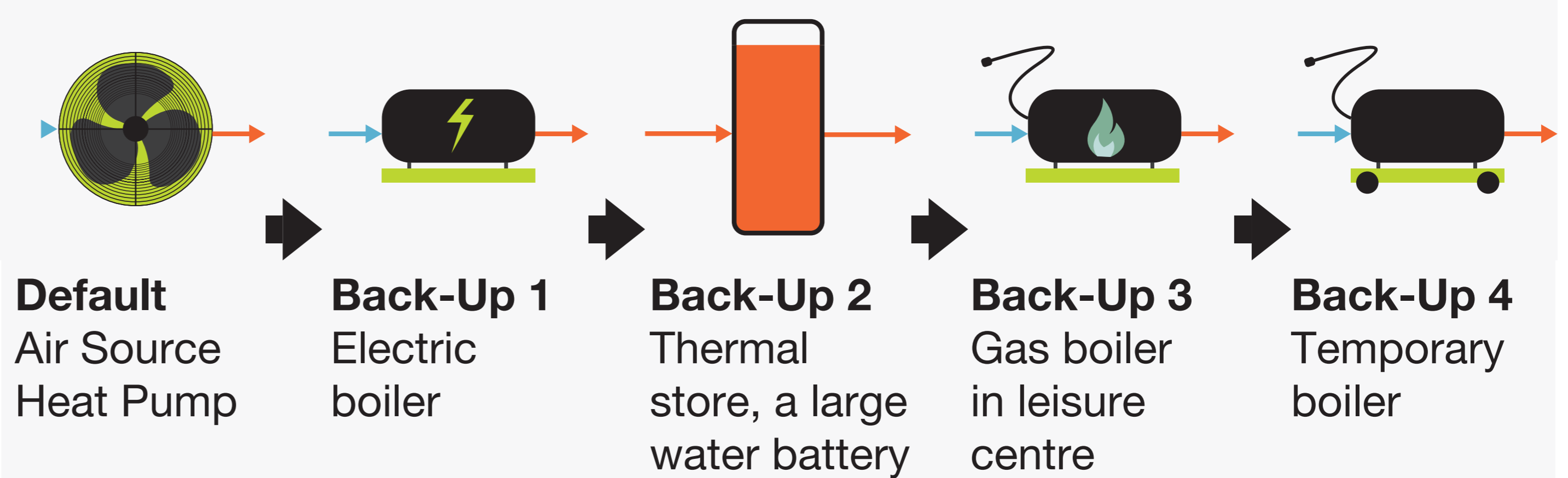
Energy Source



Electricity

The Air Source Heat Pump will be supplied with green electricity from the grid. Back-up is provided by solar panels.

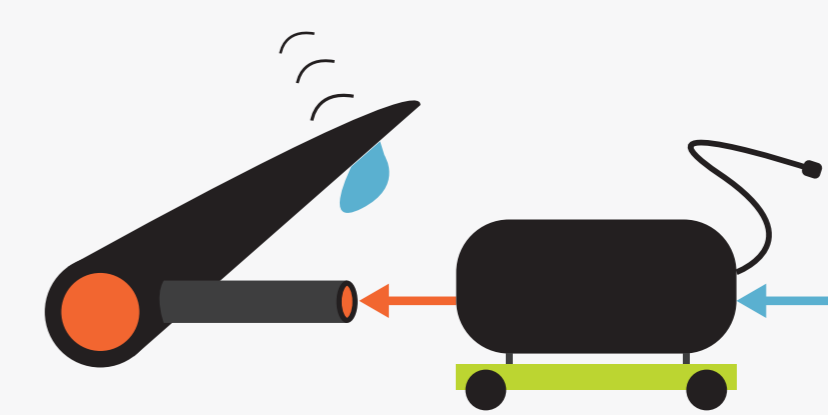
Heat Source

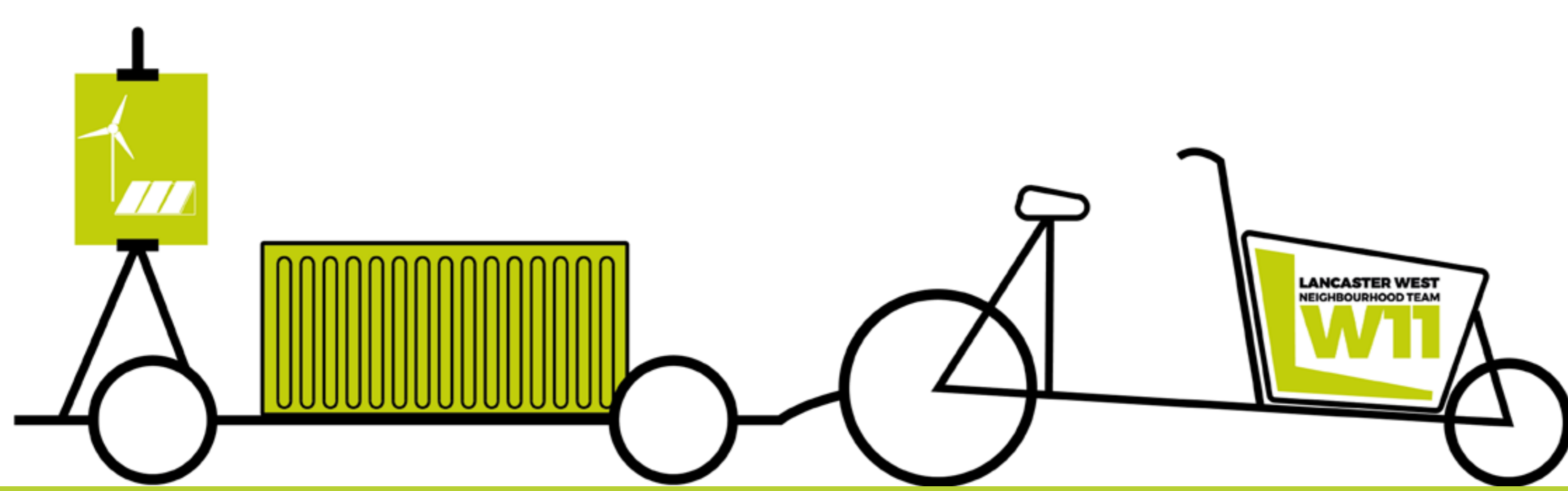


Pipes

Smart Pipes & Valves

Smart pipes will send a signal if they detect a problem. A valve can seal off pipe so a temporary boiler can connect.





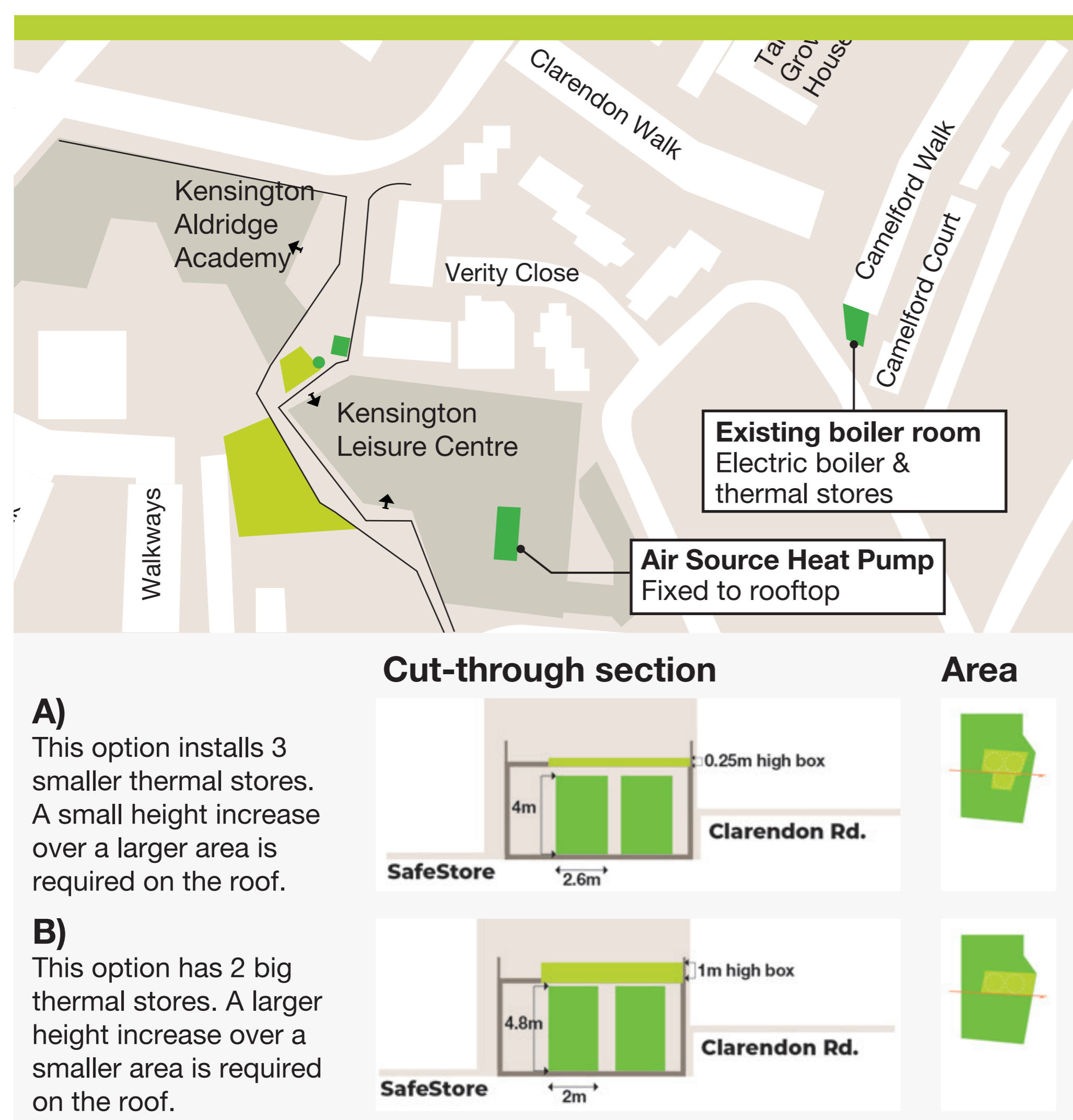
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5 Choosing a Renewable Energy Centre Site

What is proposed?

The new renewable energy centre will reuse an existing boiler room at Camelford Walk and fit a large air source heat pump to the roof of Kensington Leisure Centre. We would like to hear your opinion on where to locate the thermal store for the energy centre.

Option 1 Camelford Walk



What does this option offer?

Pro
The thermal stores are contained within the existing energy centre, there is only a small impact on the garden area above (see section drawing).

Installing the thermal stores in the existing boiler room, could create a 'stepped' feature within the new Moroccan garden. These could be designed as raised planted beds, or seating for example.

This option would cause less disruption around Kensington Leisure Centre.

Con
There would be additional disruption to resident's homes near Camelford Walk boiler room during the energy centre construction.

There will be some disruption to the resident co-designed garden at Camelford Walk.

Option 2 Kensington Leisure Centre



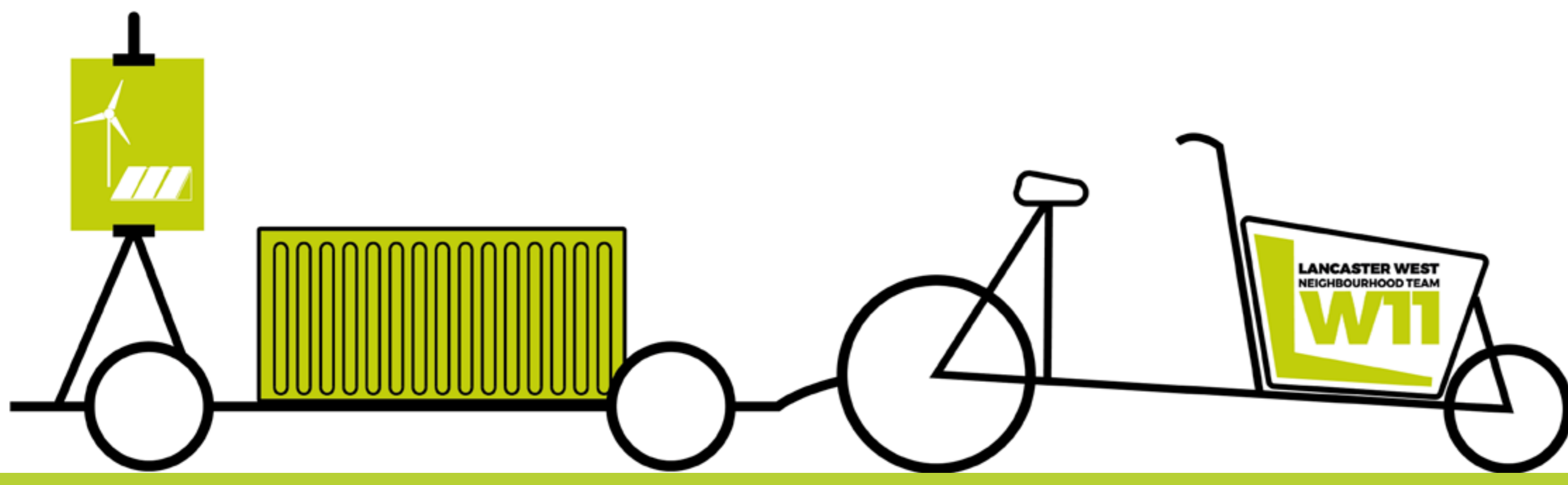
What does this option offer?

Pro
The thermal stores could become a public feature of Kensington Leisure Centre and the surrounding public area.

There are lots of opportunities offered by the thermal store; for local education, a public artwork, or landmark feature.

Less structural work would be needed to the existing boiler room at Camelford Walk.

Con
Proximity to Kensington Leisure Centre.



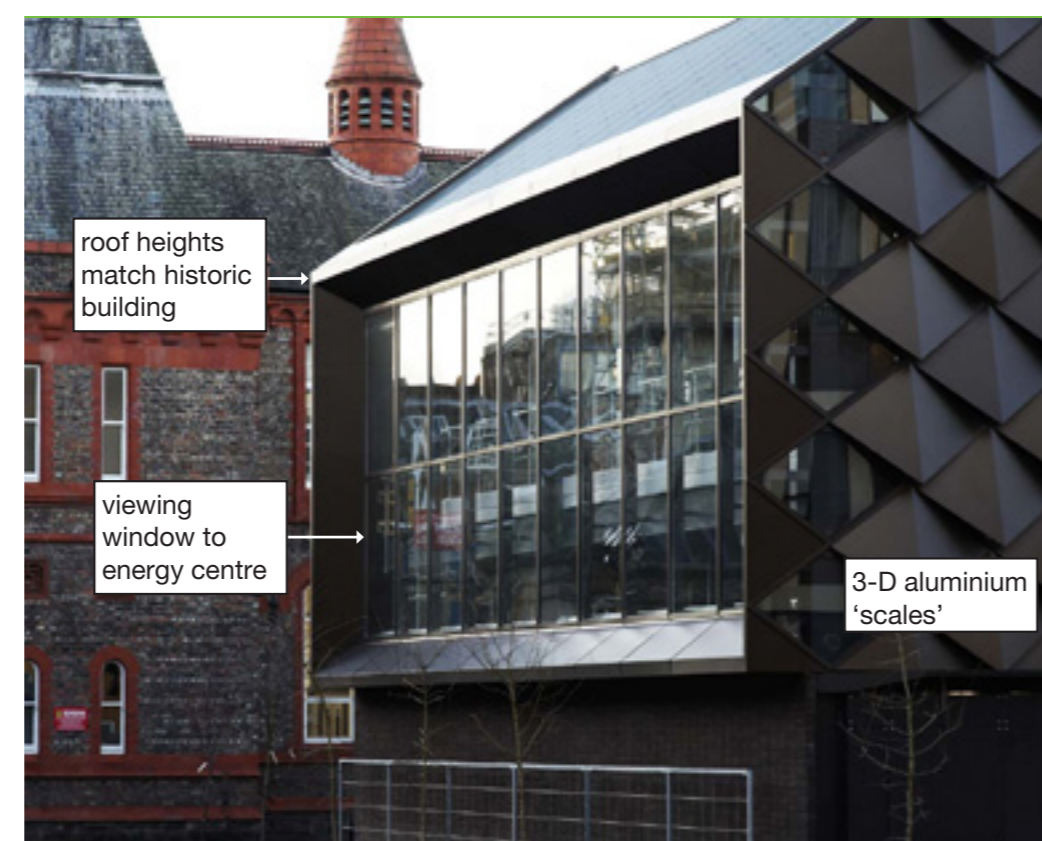
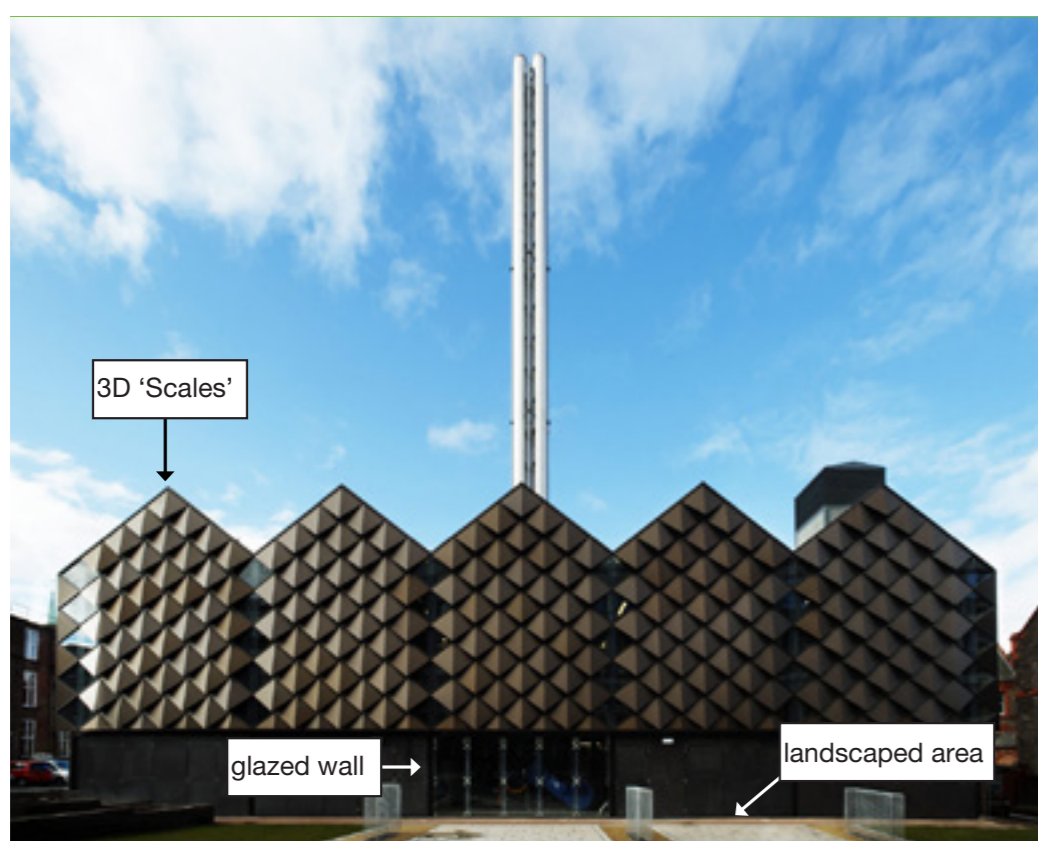
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6 Renewable Energy Centre Case Studies

Which case studies inspire you?

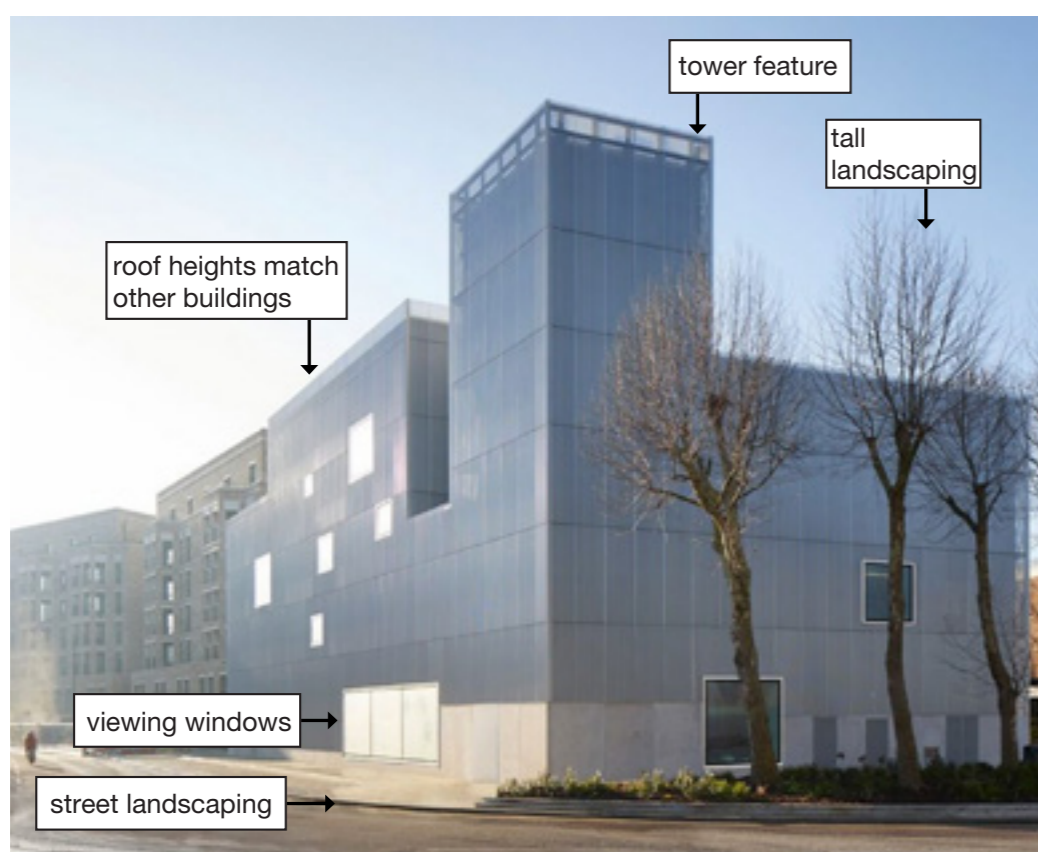


To create the new energy centre, we will redesign the boiler room at Camelford Walk. Which case studies inspire you?



Case Study 1 Liverpool Uni

Colour	Dark, heavy
Transparency	Feature windows
Materials	Metal & glass
Style	Modern Industrial



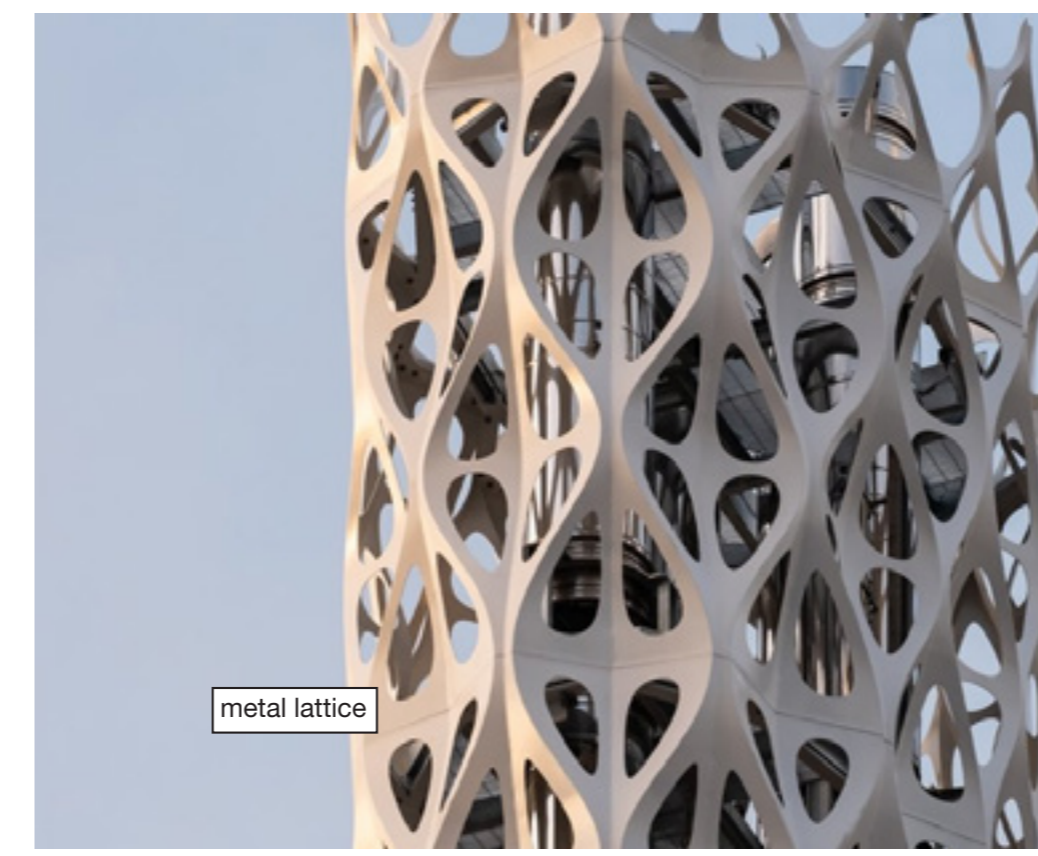
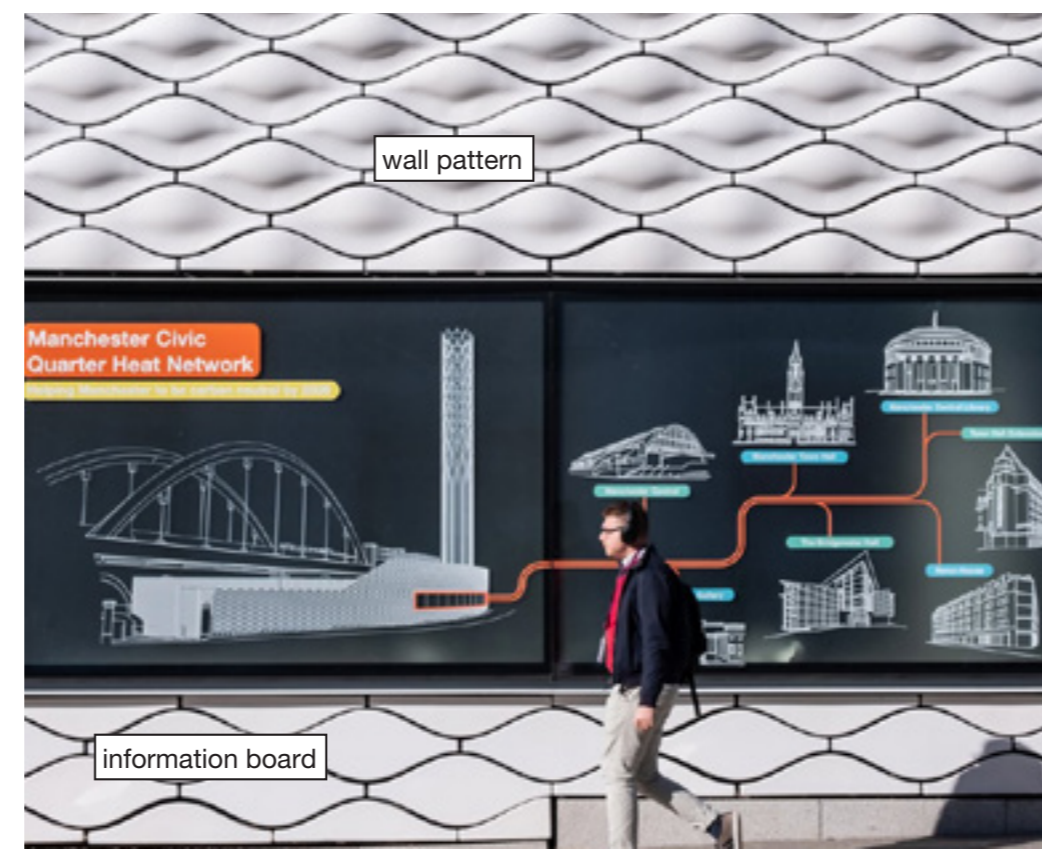
Case Study 2 Energy Hub, London

Colour	Light
Transparency	Translucent
Materials	Plastics & glass
Style	Modern



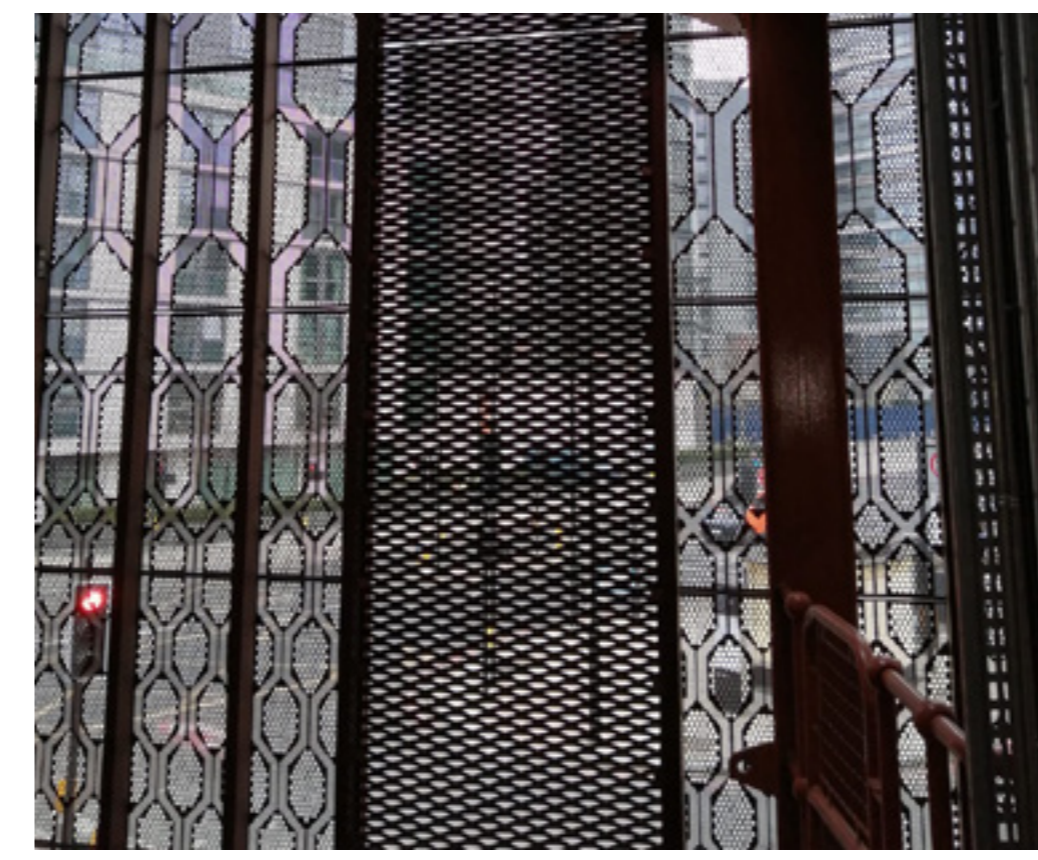
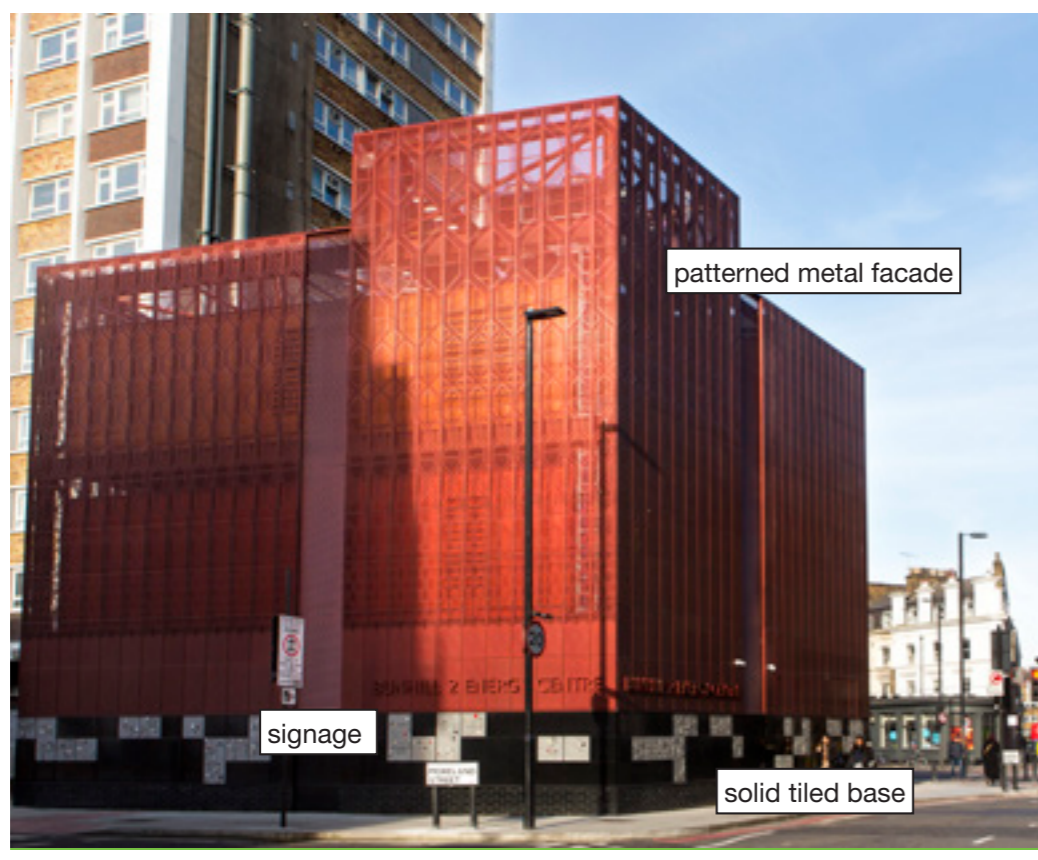
Case Study 3 ParkHaus, Denmark

Colour	Rust
Transparency	Translucent frame
Materials	Metal & plants
Style	Modern industrial



Case Study 4 Manchester

Colour	Light
Transparency	None
Materials	Metal
Style	Modern industrial



Case Study 5 Bunhill

Colour	Red & bright
Transparency	Light, no visual
Materials	Metal & tiles
Style	Modern industrial



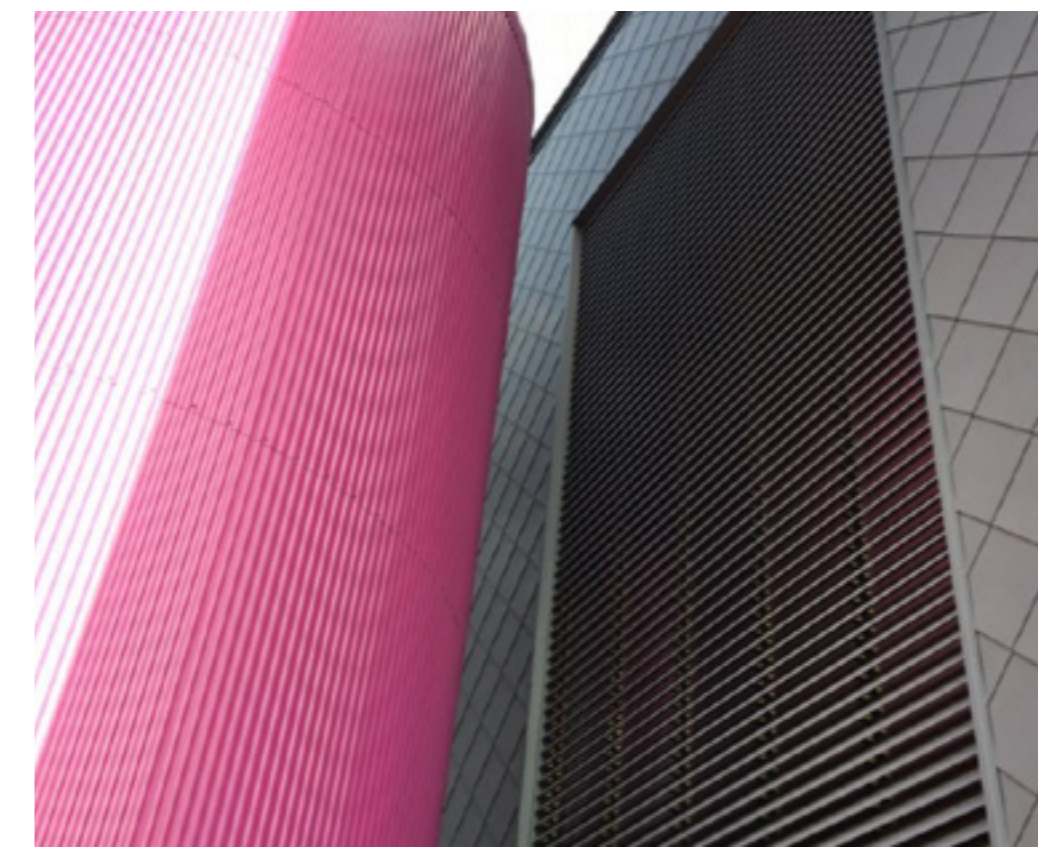
Case Study 6 Community Centre

Colour	Light & bright
Transparency	Feature windows
Materials	Timber
Style	Modern, natural



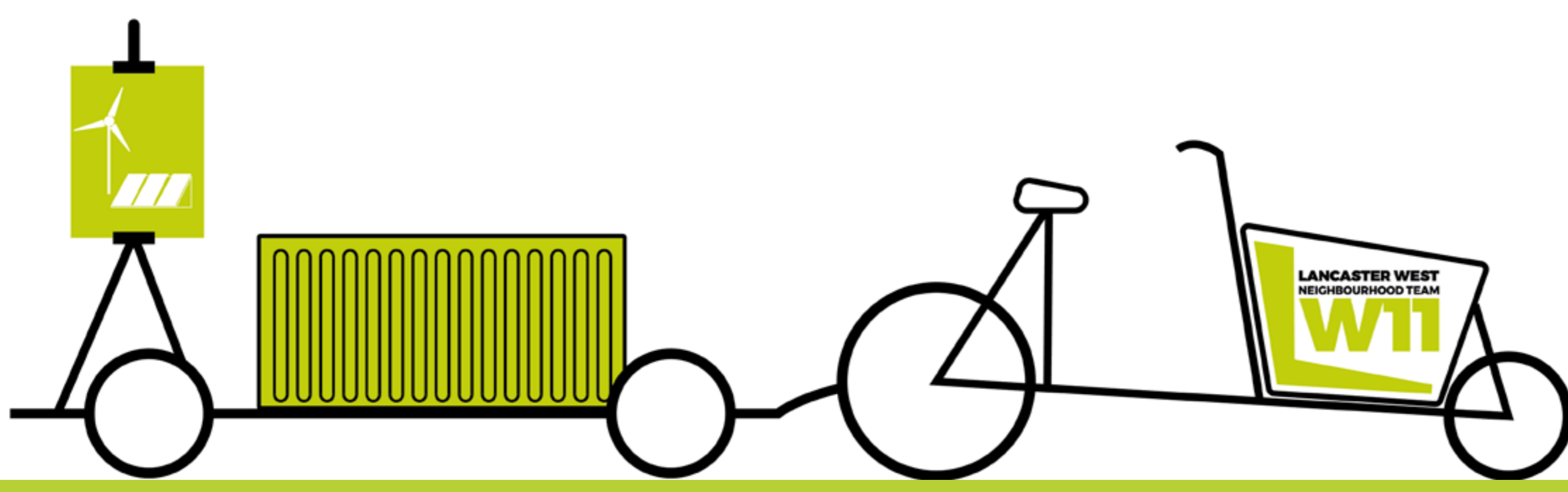
Case Study 7 Leeds

Colour	Seasonal
Transparency	Large window wall
Materials	Timber & plants
Style	Modern industrial



Case Study 8 Gateshead

Colour	Greys & pink
Transparency	Windows
Materials	Metal facade
Style	Modern

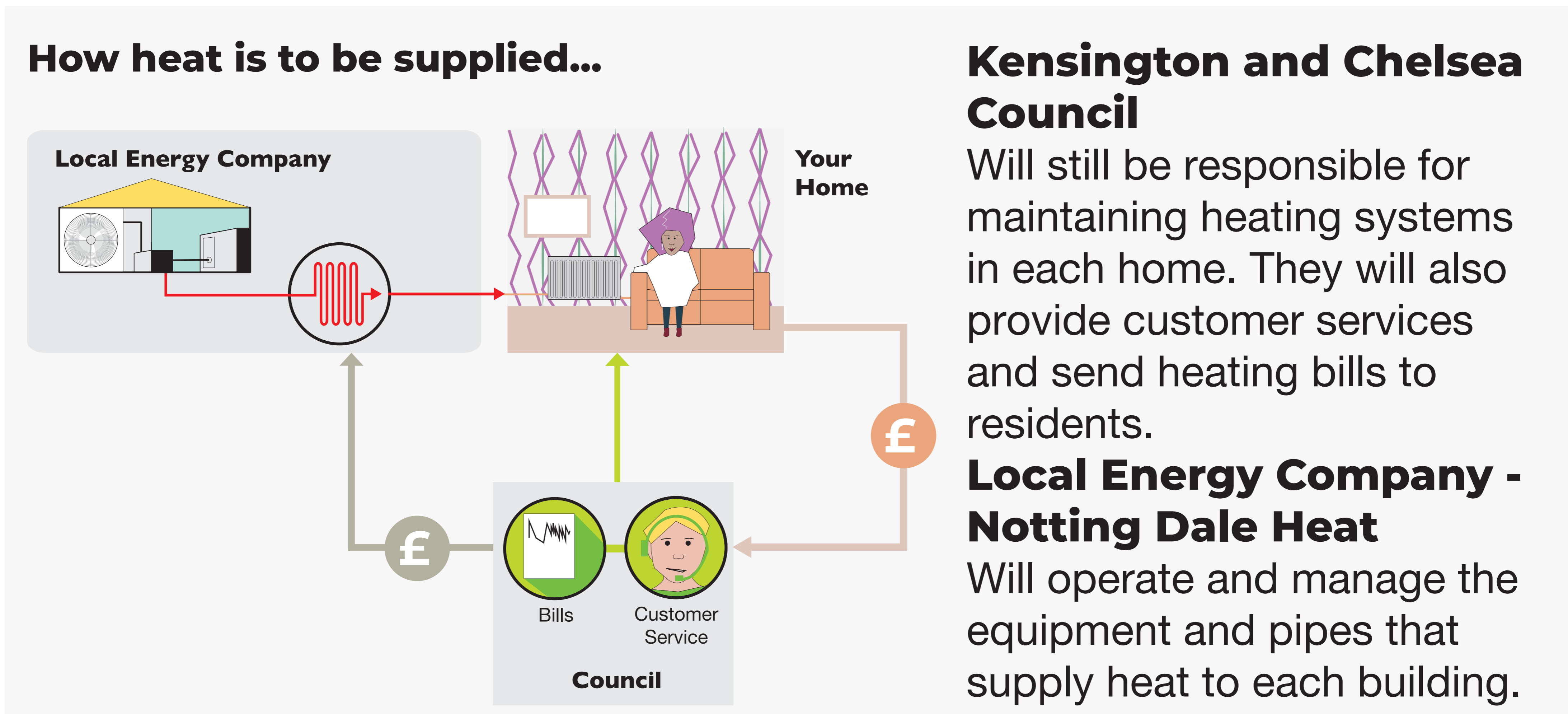


Notting Dale Heat Network

7 The local energy company

Notting Dale Heat

‘Notting Dale Heat’ is the new local energy company, which is 100% owned by the Council. It has been set up to supply heating and hot water to Lancaster West Estate.



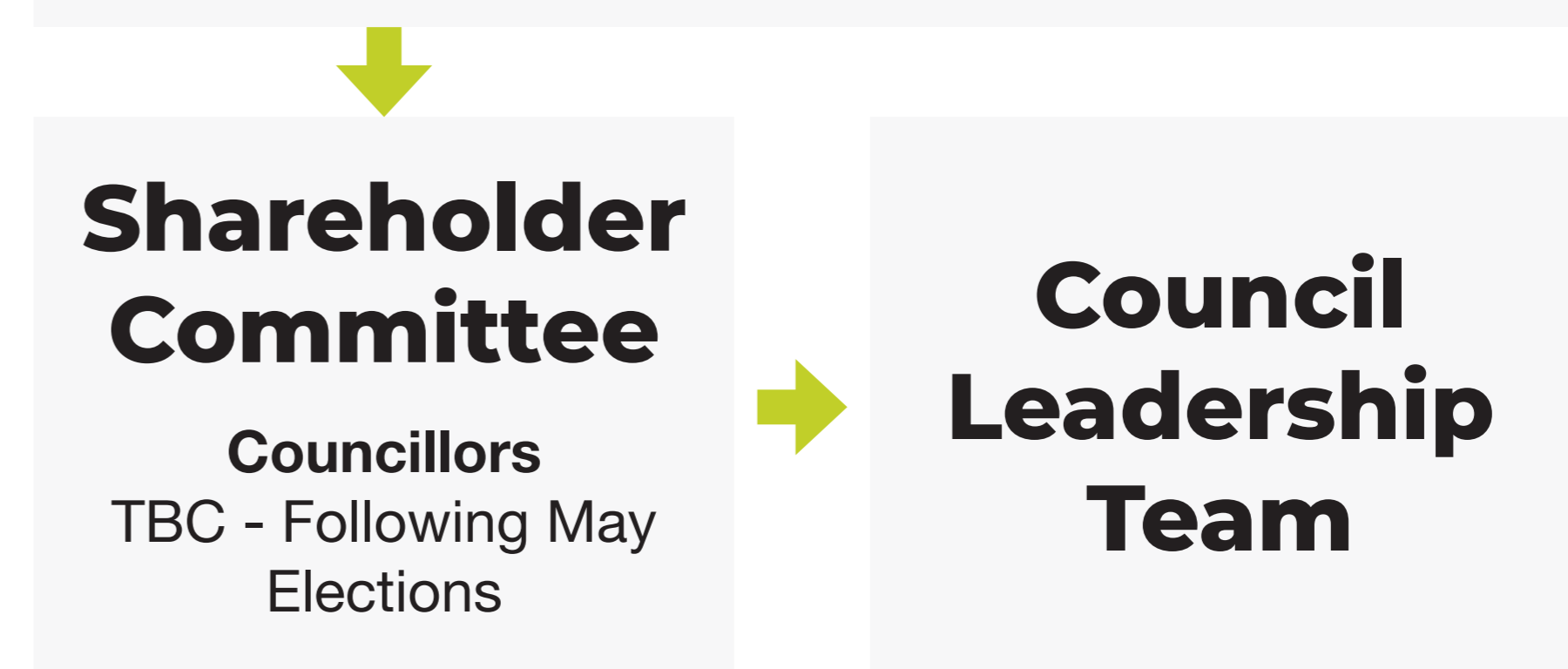
Notting Dale Heat’s responsibilities

1. Keep the machinery and pipework for heat delivery working well
2. Manage the company income and budget
3. Attract heat network professionals to deliver excellent customer service

How will the heat network be managed?

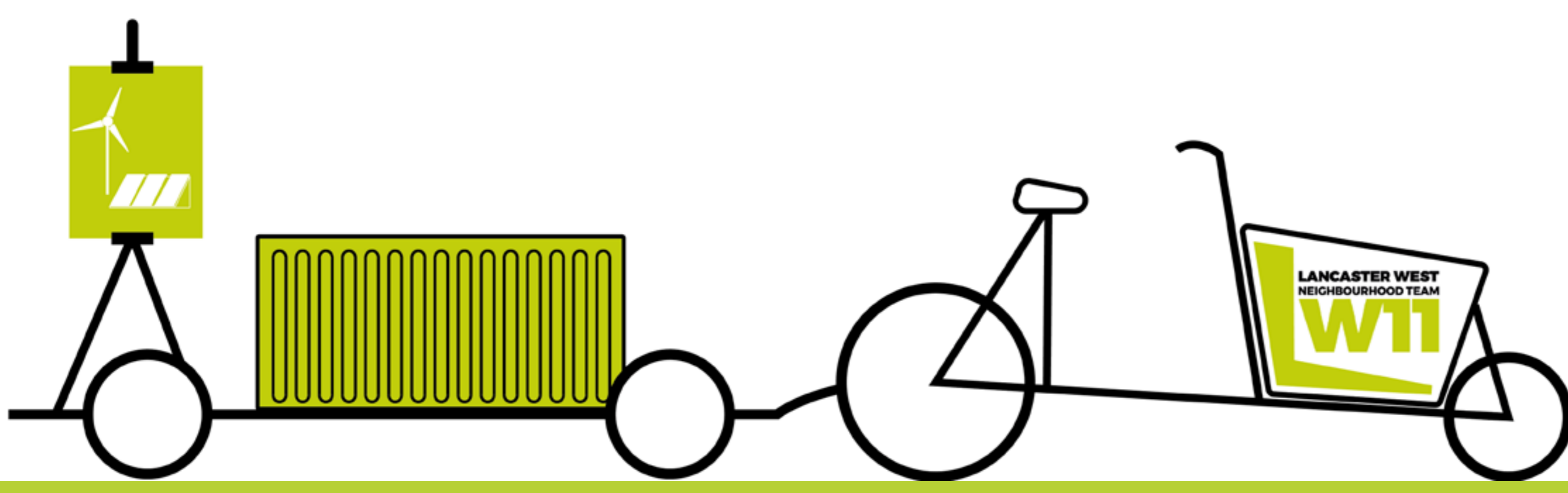
Notting Dale Heat will have its own budget and be overseen by a management board. The board will include two residents. The board can make operational decisions independently, to ensure smooth day-to-day running of the heat network.

A Shareholder Committee will provide strategic oversight of the Notting Dale Heat Network. The Shareholder Committee will be a public meeting.



Who will Notting Dale Heat supply?

All homes at Lancaster West Estate, Kensington Leisure Centre, Kensington Aldridge Academy and Baseline Studios. Future phases will include adjacent social housing.



Notting Dale Heat Network

8 Putting Residents First...

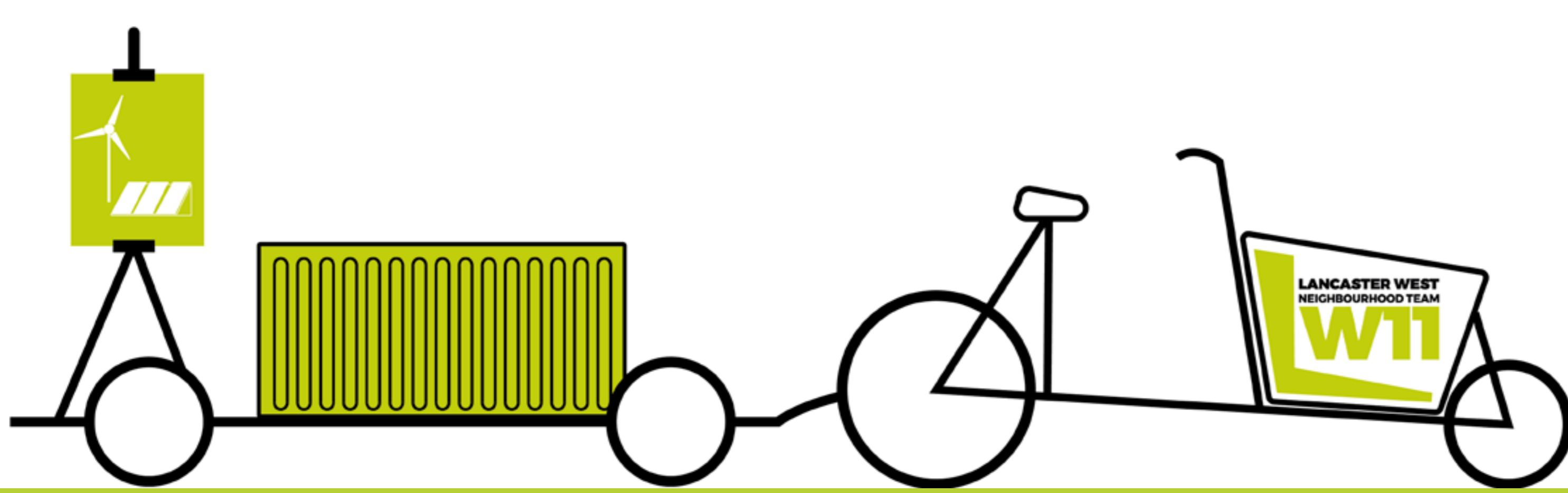
How will Notting Dale Heat put residents first?

Resident Input
We will start engaging with residents on Customer Charters later this year...

- 1 Customer Charter** This will give a guarantee on heat quality and customer service to all residents.
- 2 Vulnerable support** Extra help with heating and hot water is available for anyone that is in a vulnerable situation.
- 3 Resident price promise** Until 2030, residents will pay the cheaper energy price, either gas or renewable heating cost.
- 4 The Heat Trust** The heat network will register with the Heat Trust, an independent customer champion organisation.
- 5 Ofgem Regulation** From 2024 Ofgem will regulate Heat Networks, this will give quality and price protection, similar to gas and electricity today.
- 6 Board Structures** The heat network board will make operational decisions for the heat network. The board will include two heat network customers who live on Lancaster West Estate. A shareholder committee will also provide additional checks, to ensure excellent customer service.
- 7 Customer Service** Notting Dale Heat will deliver excellent customer service, with at least 80% customer service satisfaction. We are asking residents to help us decide how to measure customer satisfaction.

Resident Input
Resident Price Promise has been developed through 3 resident workshops

Resident Input
Residents suggested that customers join the local energy company board.



Notting Dale
Heat Network

9 Designing heat network customer services

Heating as a service

Heating is a service that must deliver 3 things: quality heating, excellent customer service and value for money.

Proposed Customer Satisfaction Goals

We have started to set customer satisfaction goals for Notting Dale Heat, and would like your feedback:

Quality Heating	Customer Service	Money Matters
<p>Goal 1 Residents can easily control their heating and level of comfort</p> <p>Goal 2 Residents have reliable and consistent heat supply</p>	<p>Goal 3 Residents have an excellent customer experience</p> <p>Help us define what this means below</p>	<p>Goal 4 Bill and payment systems are simple to use</p> <p>Goal 5 Residents feel that heating is good value overall</p>

What customer services...?

There are 7 functions heating customer services will be able to help you with:

Resident Input
An energy support service was suggested by residents, to provide extra help after residents change over to renewable energy

1	2	3	4	5	6	7
Financial inclusion	Reporting a problem	Fixing a problem	Making a complaint	Energy support	Vulnerable support	Customer feedback

How customer service is delivered...

It's not just what we do, but how we do it that counts! What are the customer service qualities you expect and technologies we should use in your home?

