

A 21st century

Treadgold House?

Funding opportunity for super-modern, carbon-neutral homes

5:30 – 7pm

18th November 2020



The plan for today

1. Introduction

Kat Drake (Sustainability Programme Manager)

2. “MustBeZero” exclusive funding opportunity for Treadgold House

James Caspell (Neighbourhood Director)

3. Design Ideas for Treadgold House: Results of Design Competition

James Caspell (Neighbourhood Director)

4. Next steps – you decide!

Introduction

Kat Drake
Sustainability Programme Manager

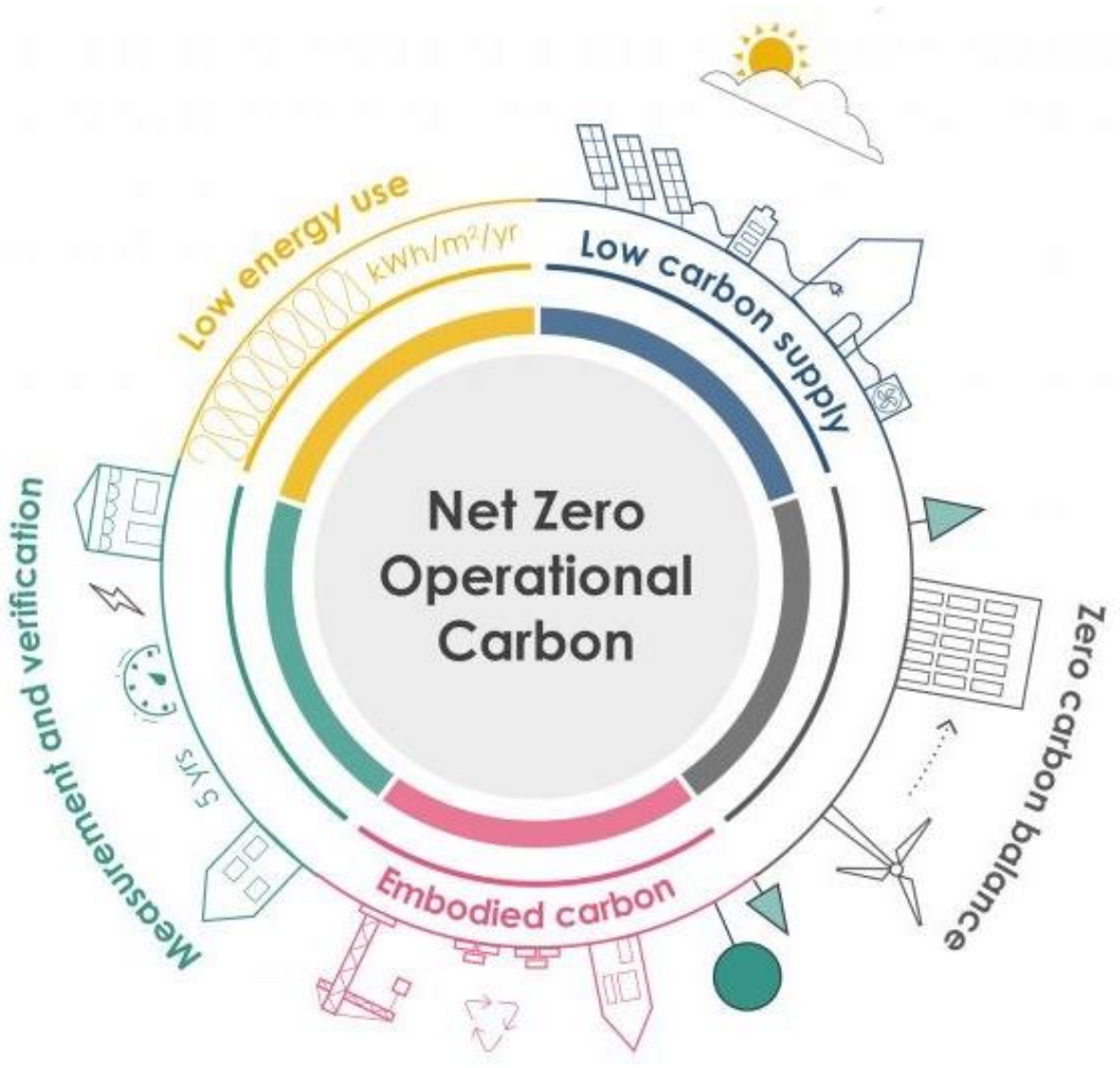
Purpose of today

- We have an **opportunity to secure extra funding** for the refurbishment of Treadgold House
- There are **conditions** attached to the funding, which we will talk you through
- We'd like residents to **think about and discuss this opportunity** to invest in your block and let us know if it's something you'd like us to proceed with by the end of November.
- **Residents will have the final say – we will only proceed if a majority of residents wish us too!**

Our vision

- Our shared vision is for Lancaster West Estate to become a **model 21st century social housing estate**.
- **Every tenanted home across the estate will be refurbished.**
- By **co-designing with residents** and using innovative approaches, Lancaster West will become an example that other estates and local authorities across the country can look towards and be inspired by.
- Lancaster West will also be a green estate, aiming to produce **net-zero carbon emissions by 2030**.
- **In January of this year, RBKC committed to being carbon neutral by 2030.**

What does net zero mean?



“MustBeZero” exclusive funding opportunity for Treadgold House

James Caspell
Neighbourhood Director

What is MustBeZero?

- Multi-storey Buildings Energy Zero (MustBeZero) is a EU Interregional programme led by the Energiesprong Foundation (NL) and the Energiesprong teams in France, Germany and UK.
- It is offering an **EU grant of £1.3 million to fund a net-zero refurbishment of Treadgold House**
- This is a **unique opportunity for extra funding** for this block to **improve the overall quality of the refurbishment**
- Treadgold House has been selected for this funding based on **an illustrative design by architects that shows a possibility of how a net zero refurbishment could be done**
- Using the funding would **make Treadgold House an exemplar block across the UK and Europe in terms of energy performance.**

£1.3m

Extra
Funding?

Funding per flat in Treadgold House

£120,000

£100,000

£80,000

£60,000

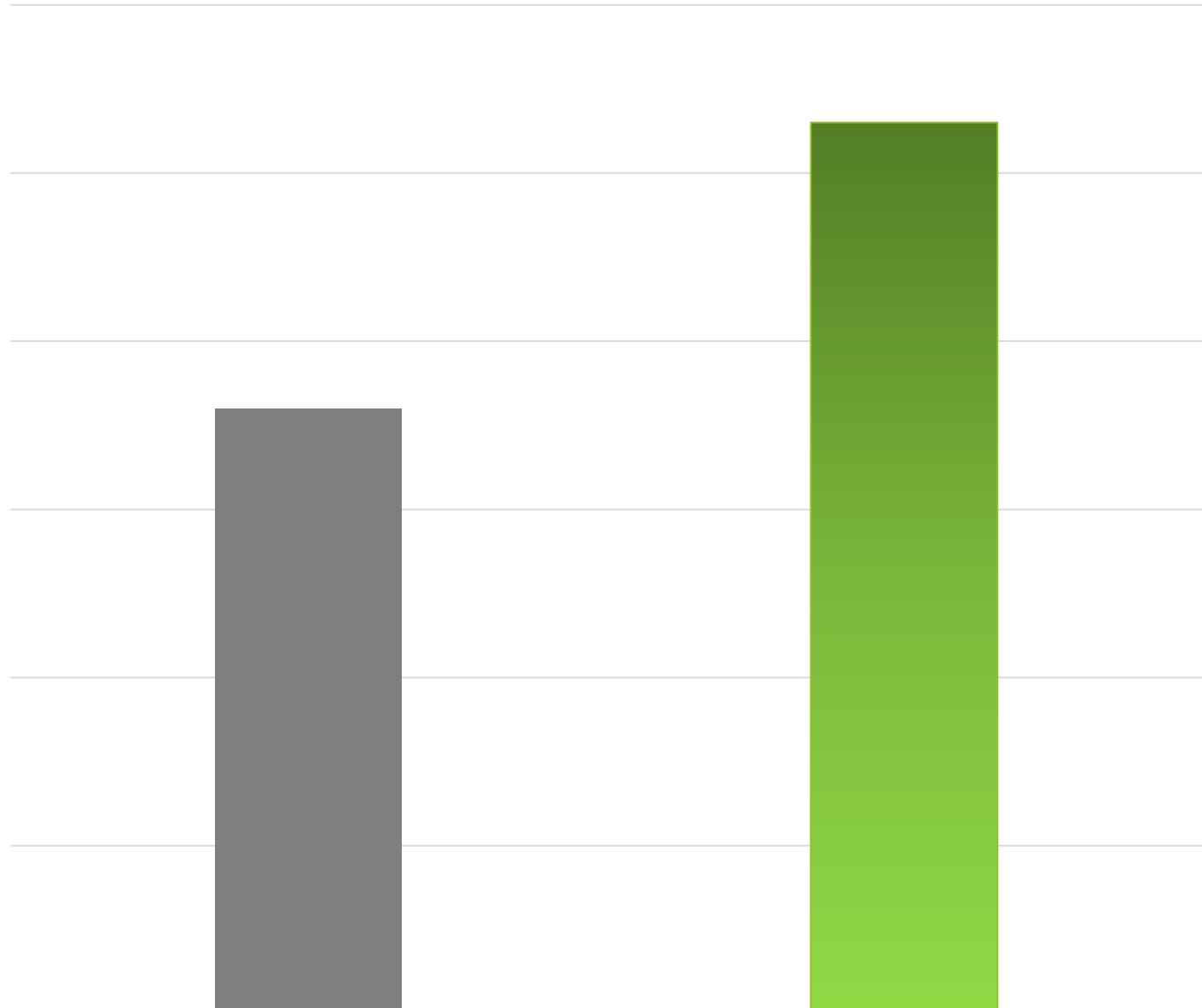
£40,000

£20,000

£0

Without MustBeZero

With MustBeZero



What will we refurbish already?

Treadgold House Refurbishment programme

Draft programme

Residents' top 10 priorities are:

- ✓ 1 Kitchens
- ✓ 2 Bathrooms
- ✓ 3 Block entry system
- ✓ 4 CCTV
- 5 Communal entrance
- ✓ 6 Replace lift
- 7 Maximise hidden storage
- 8 Redesign car park etc
- 9 Communal decor
- ✓ 10 Pest control

72%
Resident
participation



Co-design update

Building on the Ideas Days of 2018, we have engaged over a six month period with residents from every block to establish their priorities based on the budget secured and



What **extra improvements** could this deliver?

Treadgold House

Refurbishment programme

Draft programme

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Co-design update

Building on the Ideas Days of 2018, we have engaged over a six month period with residents from every block to establish their priorities based on the budget secured and



Benefits of MustBeZero funding

- ✓ **Lower energy bills** (probably 25-30%)
- ✓ **More comfortable, energy efficient homes** (cool in summer, warm in winter)
- ✓ **New triple glazed windows and state-of-the-art insulation**
- ✓ **Increased safety** by removing gas and using non-combustible materials
- ✓ **Potentially increased balcony space** in your home
- ✓ **Potentially new balconies plus ground floor flats could have some their own private outdoor space**
- ✓ **Ventilation systems** to introduce fresh air and reduce condensation
- ✓ **A more modern looking building** – which we currently don't have funding for
- ✓ **Residents to still help with co-design**
- ✓ **Aim to complete all works by end of 2022**

What's the catch?

Must be a net-zero approach, or as far towards it as possible

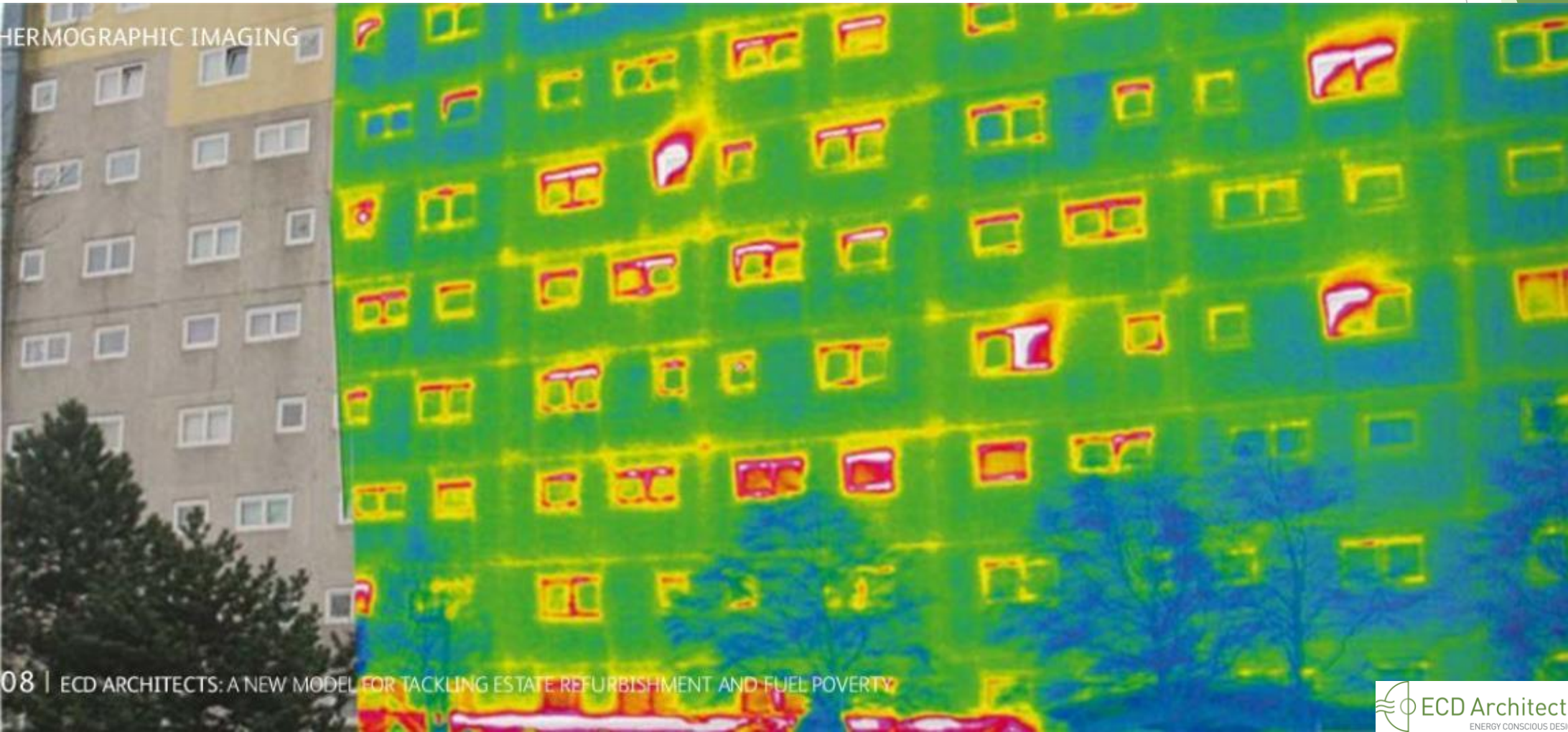
This includes all of the following::

- **Triple-glazed windows to replace existing double-glazing**
- **Solar panels on the roof to generate renewable energy**
- Mechanical ventilation heat recovery (MVHR)
- **Non-combustible** insulation on roof and walls (A1/A2 rated)
- **Removing gas**, as this is a carbon based energy source
- **Use of off-site construction**, which will minimise disruption

Why are we considering external wall insulation?

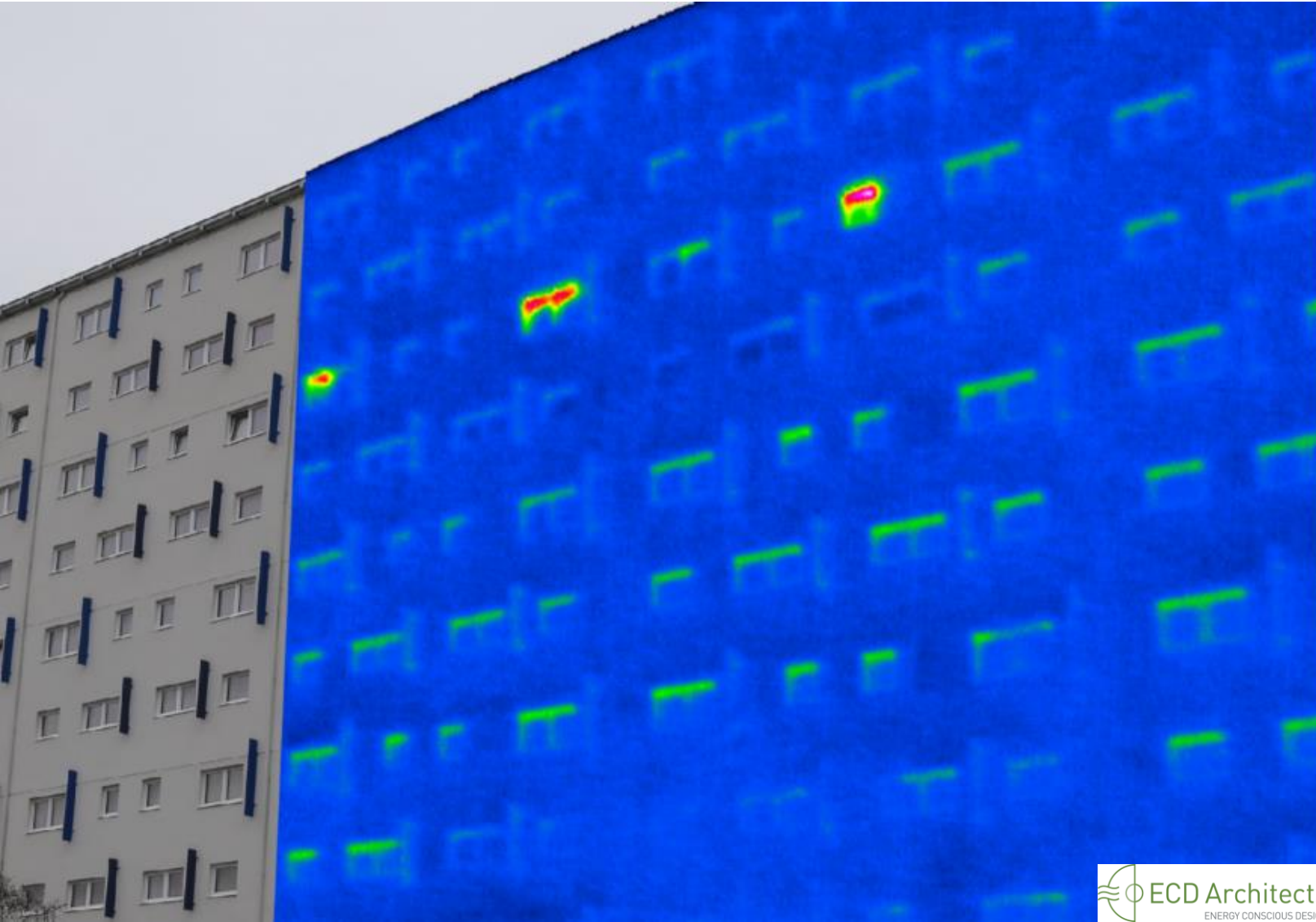
- **About 35% of heat from Treadgold escapes** through the walls.
- To achieve net zero, we have to **stop heat loss from the building fabric**
- **External wall insulation is much less disruptive than internal insulation**
- As well as helping the environment, it will **improve comfort and lower bills**
- **We would consult you throughout the process of choosing the right insulation solution and we will go for the highest possible fire safety rating**

Wilmcote House (Portsmouth) before external wall insulation



Wilmcote House (Portsmouth)

after external wall insulation





Treadgold House: (Heat loss, late October)

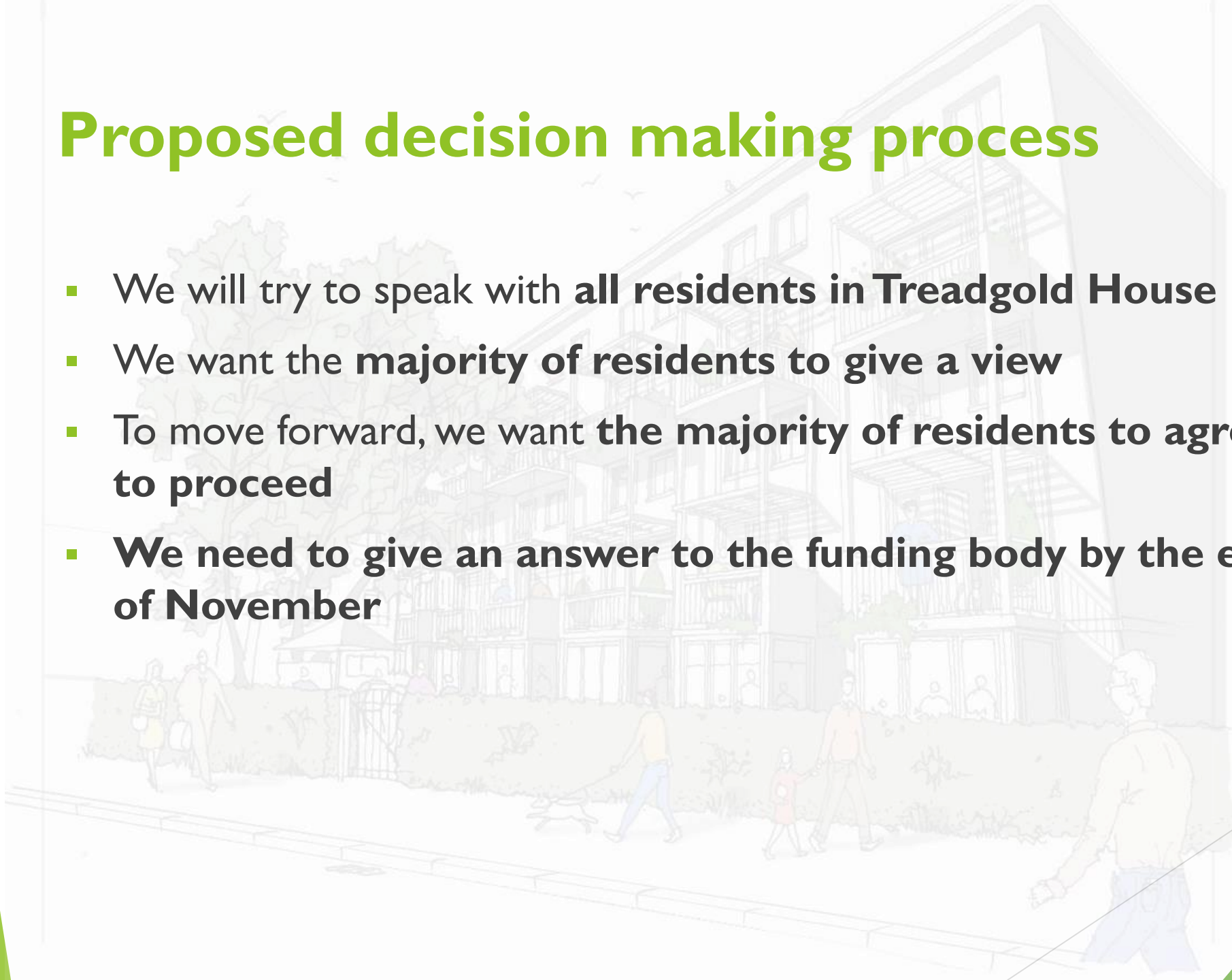
Around **35%**
of all heat is
lost through
the walls in
Treadgold
House.

What about gas?

- Even if we do not go for this funding, **gas needs to be removed eventually as the whole country is going carbon-neutral by 2050 - and Lancaster West Estate by 2030.**
- **We plan to gradually phase gas out and use a combination of heat pumps and green electricity instead.**
- After the refurbishment **with draughtproofing and additional insulation, much less heat is needed for each flat. 37 times less heat to be precise!**
- Gas hobs would be replaced by **safer, cheaper and more efficient induction hobs**
- Other reasons for phasing out gas:
 - **Long term cost of gas will increase**
 - **Indoor air quality is better without in**
 - **Improved safety in your homes and blocks**
 - **Reduces carbon emissions**

Proposed decision making process

- We will try to speak with **all residents in Treadgold House**
- We want the **majority of residents to give a view**
- To move forward, we want **the majority of residents to agree to proceed**
- **We need to give an answer to the funding body by the end of November**



You decide!

- **Residents decide** going forward with the project by the end of November 2020
- **Project initiation** and procurement of designers and builders – December 2020 – April 2021
- **Project delivery** April 2021- December 2022
- The project needs to be **completed by December 2022**





**Any
questions?**





3. Design Ideas for Treadgold House:

**Outcome of design
competition**

**James Caspell
Neighbourhood Director**

EnergieSprong UK Design Competition Brief:

“Design a detailed solution that will **guarantee warm homes at the cheapest cost to residents**”

Plus:

“Net-zero energy over the course of the year, **guarantee low bills and enhance safety**”

£30k Funding Awarded by:

**energie
sprong
uk**

Funded by:

Interreg 
North-West Europe
Mustbe0
European Regional Development Fund

Designed in
consultation with:

**LANCASTER WEST
NEIGHBOURHOOD TEAM**
W11



BOW TIE CONSTRUCTION



- ▶ Treadgold House was chosen because it the competition asked for:
 - ▶ a medium rise block of flats,
 - ▶ where aesthetic works would be beneficial.
- ▶ Additional reasons:
 - ▶ Standalone block not connected to heat network
 - ▶ No heritage concerns.
 - ▶ Fairly standard block of flats – useful pilot for replicability
 - ▶ Prioritisation workshop – residents expressed keen interest in sustainability
- ▶ We now have a concept design produced by **BowTieSprong**, a group of construction professionals
- ▶ **We do not have to use the design they have created, but it is an example of how we could use the funding**

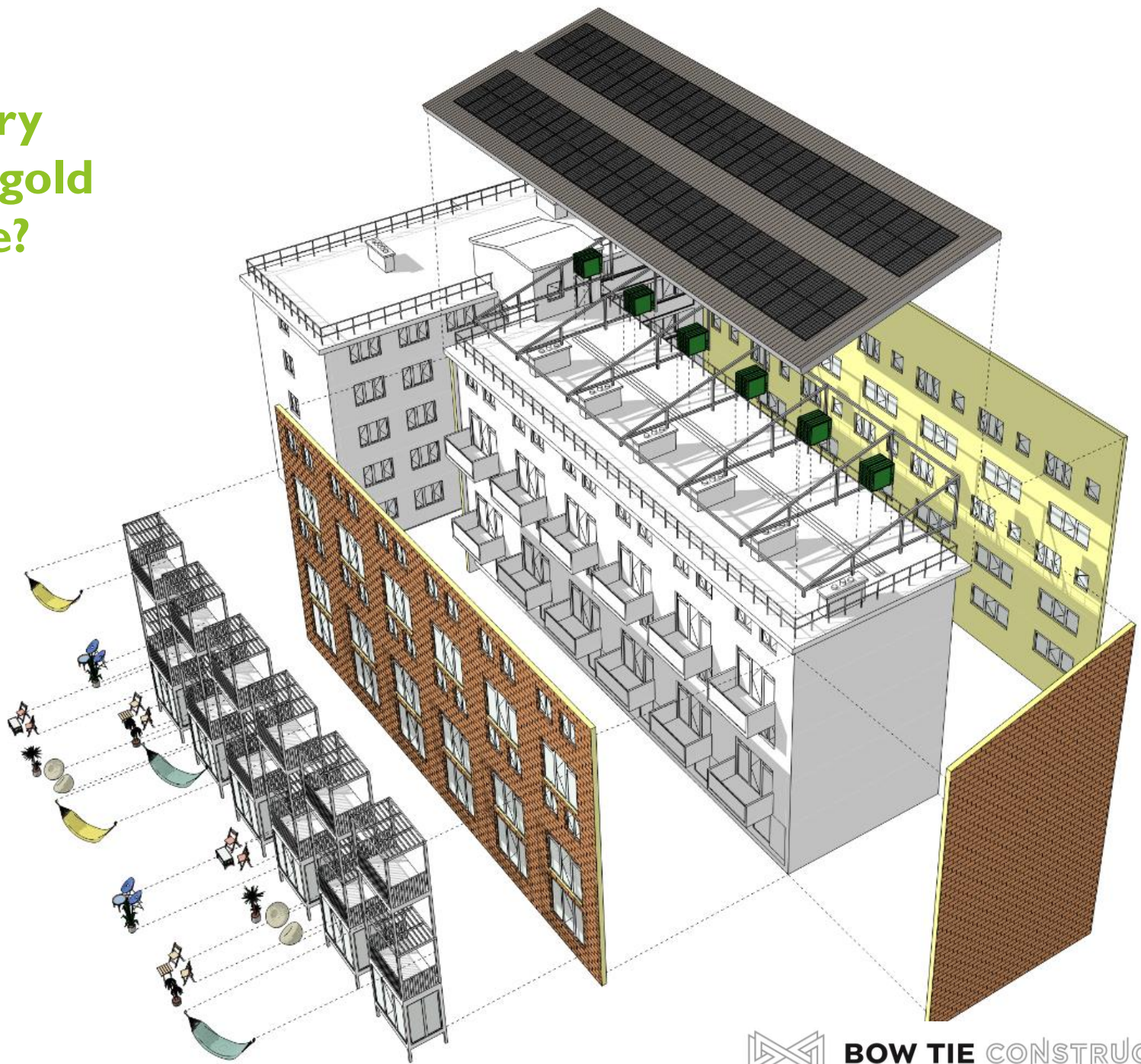


The big reveal – final design!

- Aerial video

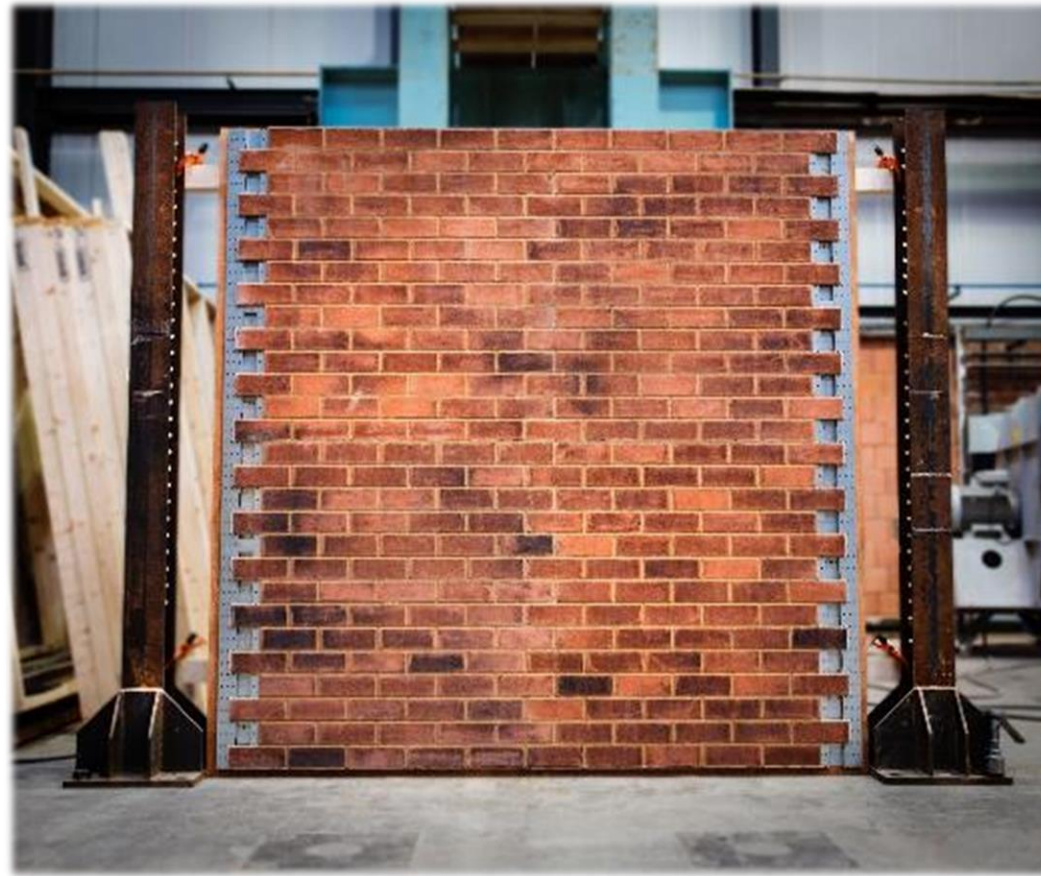
<https://youtu.be/ZkloM7MIZwg>

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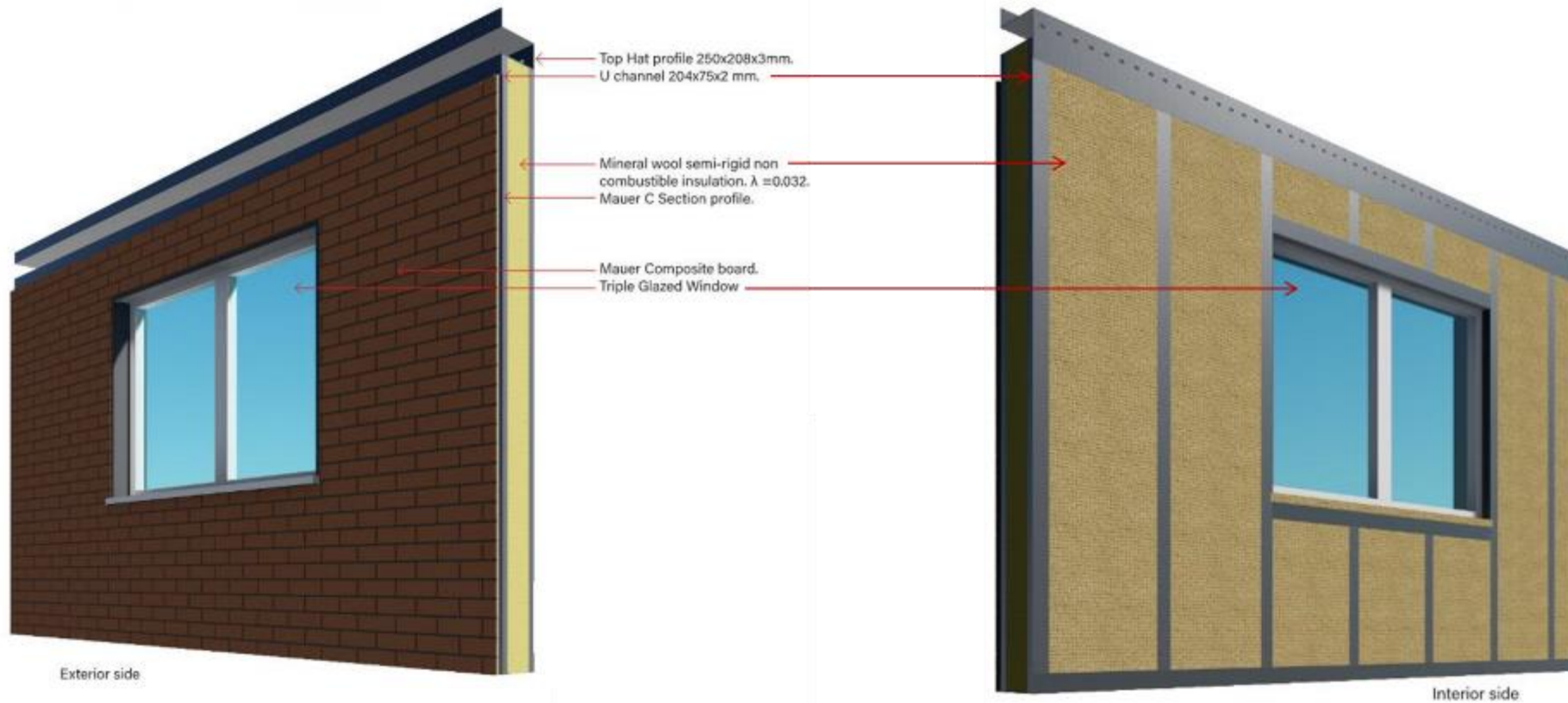
New insulated brick look façade

Non-combustible (A1/A2 rated)



New brick walls insulated with mineral wool

Non-combustible A1 and A2 materials only



Other options: Render and brick



'Just in time' delivery and installation

- From lorry to wall
- Offsite construction = minimal disruption for residents



BOW TIE CONSTRUCTION

Bigger balconies...plus new winter gardens?

Grenfell Road side:
Existing 3.72 sq m



Proposed adds 6.46 sq m
totaling **10.2 sq m**



Bomore Road side:
Existing 2.52 sq m



Proposed 4.8 sqm



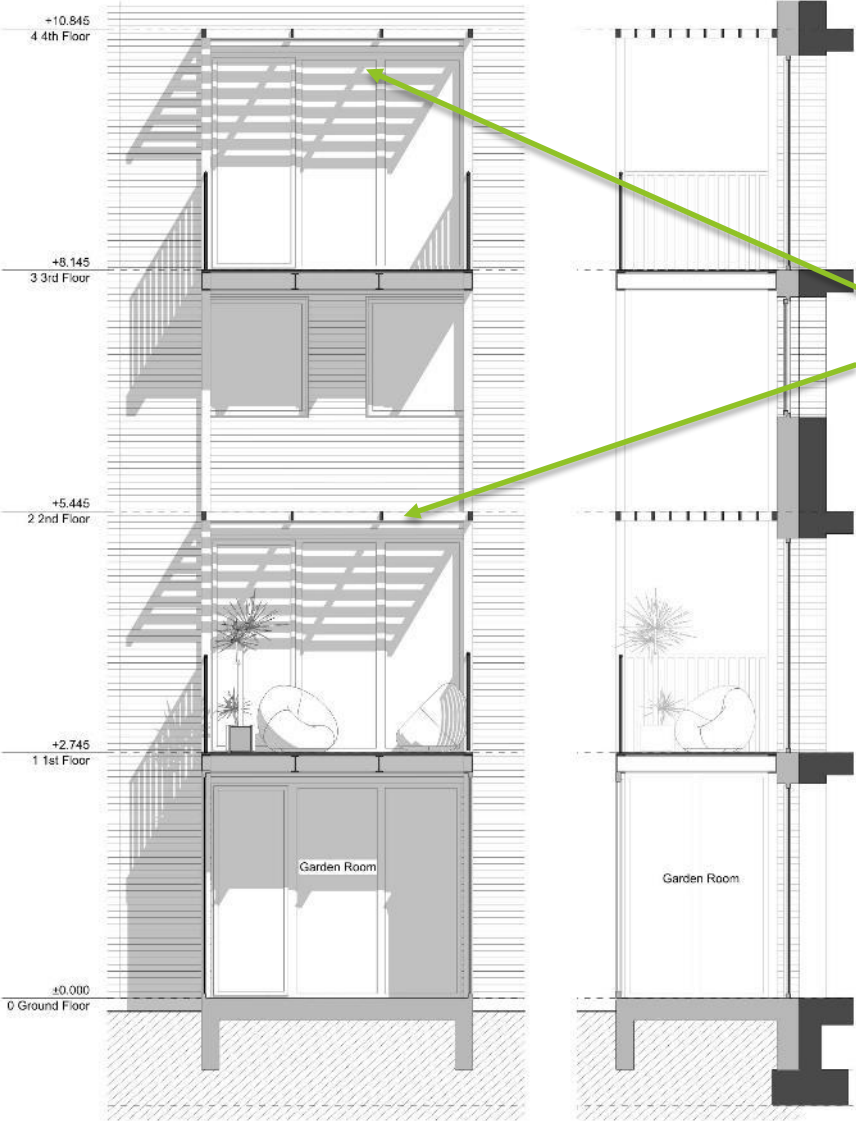
Treadgold Road side:
Existing walkway – Block B



Proposed 5.6 sq m Porch



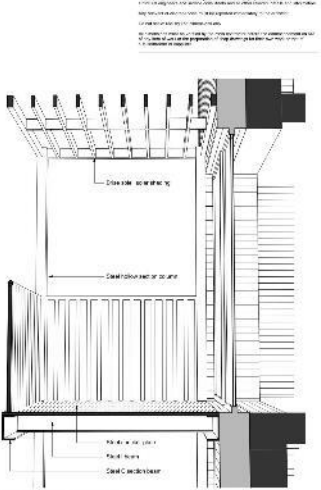
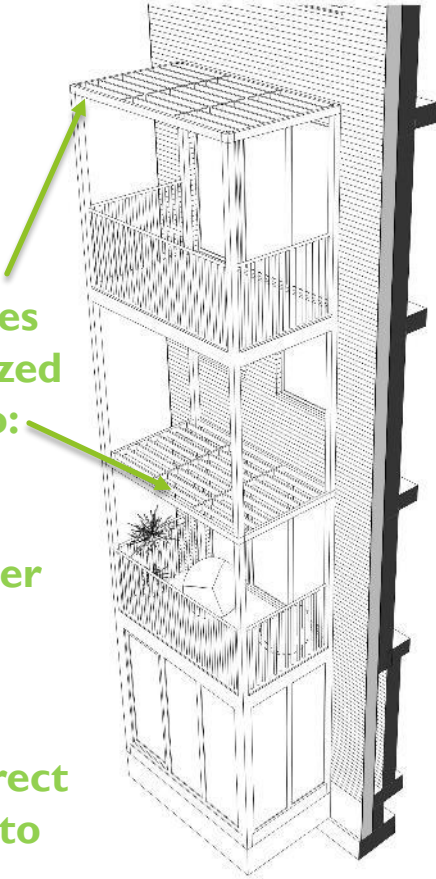
Balconies that work with the climate



Balcony shades specifically sized and angled to:

Allow in winter sun

Shade out direct summer sun to prevent overheating



Key

- Proposed Schedule
- Existing Structure

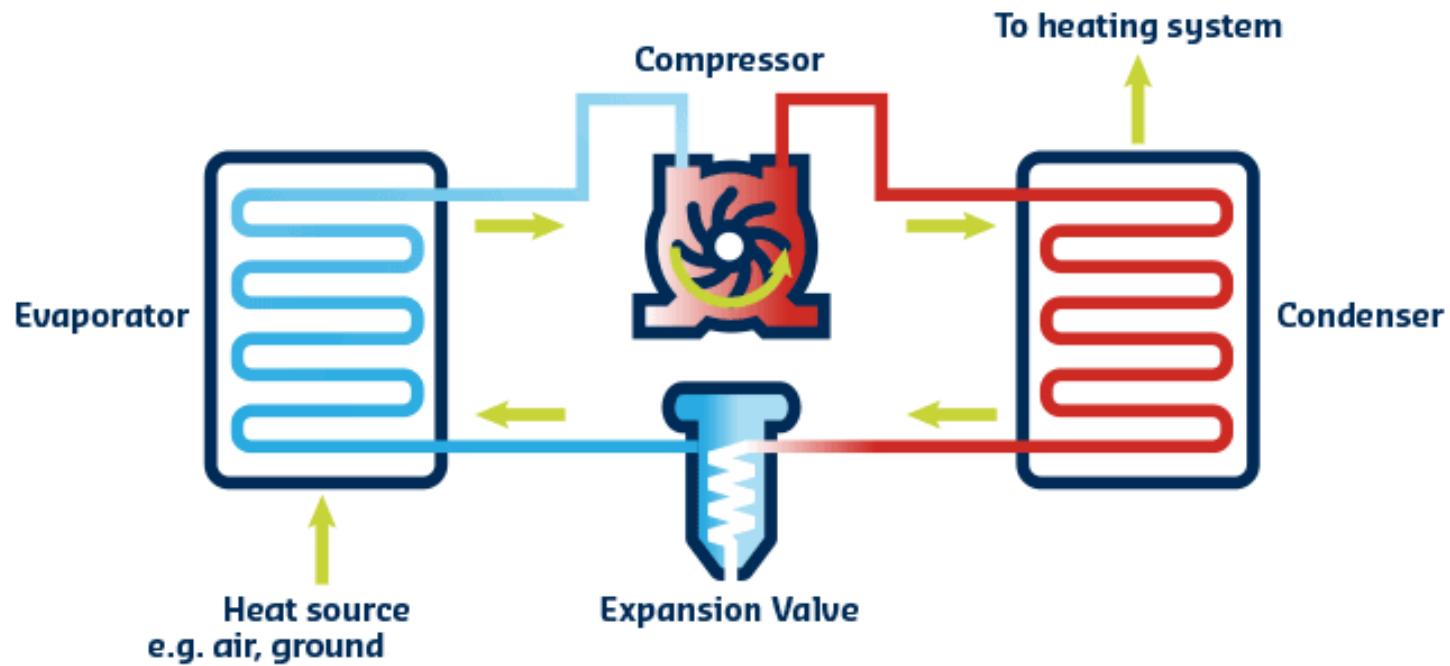
No.	Rev.	Description
1	1	Issue for Review
2	1	Issue for Review
3	1	Issue for Review
4	1	Issue for Review
5	1	Issue for Review
6	1	Issue for Review
7	1	Issue for Review
8	1	Issue for Review
9	1	Issue for Review
10	1	Issue for Review

PRELIMINARY

Treadgold House
Proposed Balcony Sections

Rev.	Date	By	Check	Scale
1	May 20	KB	JH	1:100
2	4/18/2017			

How does an Air Source Heat Pump work?



Mechanical ventilation with heat recovery – fresh air without heat loss

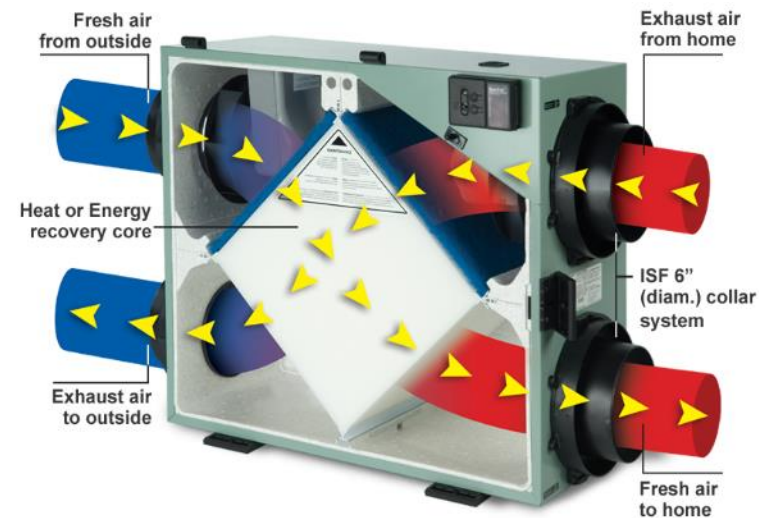
Tackling Fuel Poverty

- ✓ Living Area Constant 21°
- ✓ No Damp and Mould: All surfaces > 19°
- ✓ Buildings will be more thermally efficient



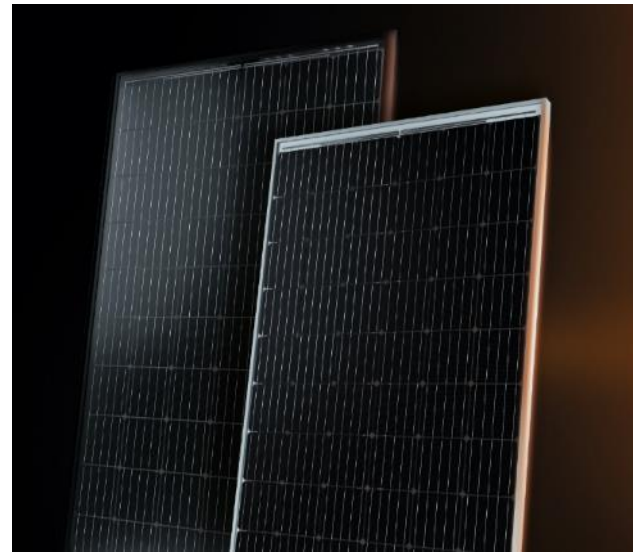
24/7 Clean Filtered Warm Air

- ✓ Near silent, runs in the background



Electricity from solar panels on a new “warm” roof

- Providing renewable electricity and heating for residents
- Plus battery storage for night time





**Any
questions?**



Next steps

Cast your vote by 30th November 2020! You can do this, and find out more information, in several different ways:

- **Ballot boxes** around Treadgold House
- **Drop-in table** outside Treadgold House, 3pm-5pm on 25th November
- **WhatsApp group:** to join, send your phone number to Resident Engagement Lead, Linda Fenelon on **07814608999**
- **Email or call/text** Resident Engagement Lead, Linda Fenelon on **07814608999** or linda.fenelon@rbkc.gov.uk
- **Digital survey** details of how to access this will be in a letter delivered to residents this week

You decide!

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