## Lancaster West

# Becoming a net-zero carbon estate by 2030

Hannah Smith, Kat Drake, Shaun Haden Version I



## Our objectives to achieve the vision

- **Refurbishing the Lancaster West Estate** and all other properties managed by LWNT to a high sustainability standard.
- Reducing operational carbon emissions on the estate as far as possible and offsetting any remaining emissions to get to net-zero.
- **Co-designing** a sustainable future with residents.
- Pioneering the zero-carbon approach for the rest of Kensington and Chelsea.

## What net-zero means for Lancaster West

Operational carbon emissions from the estate should be minimised as far as possible, and

net emissions should be reduced to zero.

#### **Our Priorities:**

I. Investing in improving the energy efficiency of buildings and demand reduction.

2. Prioritising the use of renewable energy sources.

3. Offsetting any remaining emissions as an absolute last resort.

We will also minimise embodied carbon on the estate and emissions from the refurbishment by using sustainable materials and methods and committing to recycling wherever possible.

### Developing a Heat Network

• The sewer running underneath the estate has been identified as a potential source of renewable energy.

• Initial technical studies by Arup suggest its possible but further work need to be done. Consultants are being appointed to do this work.

• We should know by December if the sewer is a viable option for energy.



Figure ES2: Proposed external district heating netwo

## Heat Network Feasibility Study

#### Next steps:

- Appoint consultants to develop a detailed design of the potential Heat Network, investigating the sewer as a source or renewable energy.
- TACE (Mechanical & Electrical consultants) to develop alternative heating and hot water options alongside the Heat Network detailed design
- Engage residents throughout the development of these designs and options for how residents get their heating and hot water
- Apply for Heat Network Investment Project (HNIP) funding (if required)

## Treadgold House Net Zero Design BowTieSprong

Net Zero Design of Treadgold House produced by a consortium of architects BowTie and EnergieSprong

#### Includes:

- Increased internal space for residents through internalization of external balconies
- Mechanical heat recovery and sewer source heat pumps
- Fabric first approach to energy efficiency to reduce bills and carbon footprint through A-rated insulation

## Treadgold House Design Net Zero BowTieSprong

#### Next steps:

- Presentation to residents in October
- Presentation to new Treadgold House Multi-Disciplinary Design Team
- Seek funding through Innovate UK and Social Housing Decarbonisation Demonstrator

## Green Homes Grant Local Authority Delivery Scheme

£103,000 of grant funding has been secured from the Department for Business, Energy and Industrial Strategy. (BEIS) to install roof insulation at Camelford Court.

Why roof insulation at Camelford Court? Because it met the criteria of the scheme:

- Homes must be EPC E or below
- Projects must be completed by March 2021
- Up to £5000 grant available per home (up to 2/3 of the costs of work)
- Households income must be £30,000 or below

Phase 2 of the scheme launches next year, we'll be applying for that too.

## **Green Homes Grant Voucher Scheme**

The Green Homes Grant is an additional part of the UK Governments green recovery from the Covid-19 pandemic.

#### Criteria:

- Primary measures: insulation or low-carbon heat
- Secondary measures: energy efficient windows and doors, heating controls
- Must be installed by March 2021
- Up to £10,000 grant per household (covering up to 2/3 of the cost of measures)



## Social Housing Decarbonisation Fund Demonstrator

This is a £50million demonstrator for a £3.8billion funding commitment to supporting whole-house retrofit over the next 10 years.

We're applying for Treadgold House via Bowtiesprong using their designs, and looking to submit an additional application for other blocks across Lancaster West.

#### **Criteria:**

- Maximum bid £13.5million
- Bids should include 75+ properties
- Properties must be EPC D or below
- Funding must be used on innovative whole-house retrofit projects
- Projects must be completed by December 2021

