
NORTHERN
HOUSING
CONSORTIUM
VOICE OF THE NORTH
MEET THE NET ZERO CHALLENGE
A FAIR WAY TO NET ZERO:
TACKLING FUEL POVERTY
AND COST OF LIVING
12TH DECEMBER 2022 | 1:30 PM - 3:30 PM | ONLINE EVENT

Fuel Poverty & Decarbonisation

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Chair, Fuel Poverty Research Network

FUEL POVERTY RESEARCH NETWORK

University of Salford MANCHESTER

SHUSU
SUSTAINABLE HOUSING & URBAN STUDIES UNIT

People, Place and Policy

People, Place and Policy (2022): 16/1, pp. 116-135. DOI: 10.3351/ppp.2022.3776894798

Research article

'The reduction of fuel poverty may be lost in the rush to decarbonise': Six research risks at the intersection of fuel poverty, climate change and decarbonisation

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1 University of Salford
2 National Energy Action
3 University of Huddersfield

Abstract

As energy justice research develops and becomes increasingly international in reach and perspective, the climate emergency is an important layer of focus. Fuel poverty alleviation, climate change adaptation and decarbonisation are prominent agendas that are often assumed to be complementary and synergistic. Buildings contribute a substantial share of energy-related greenhouse gas emissions, and their inhabitants will suffer the impacts of extreme temperatures and an unstable climate. How we move towards low-carbon energy sources and technologies in a way that does not leave vulnerable householders behind and does not perpetuate and deepen inequalities is therefore an essential question for those investigating just transitions to a low-carbon future. By means of a Delphi study with a wide range of researchers and stakeholders, primarily in the UK and engaged with energy justice research and policy internationally, we draw on qualitative interviews to distil a set of six risks that inform the development of a research agenda towards a just transition. These risks relate to the prominence of decarbonisation subsuming fuel poverty or detracting from the need for fuel poverty alleviation; the importance of fuel poverty research anticipating climate impacts; the pitfalls for vulnerable people of a transition to electric heating and other technologies; the potential for renewable energy to be costly and excluding; as well as the need to be mindful of existing inequalities and to be sensitive in our treatment of energy practices.

Keywords: Energy justice, energy poverty, climate change, decarbonisation, just transitions.

1. decarbonisation overshadows and detracts from fuel poverty alleviation;

2. fuel poverty research does not take account of adaptation to a changing climate;

3. a transition away from gas results in higher costs and more fuel poverty;

4. the development of renewable energy has limited impact on fuel poverty;

5. approaches to decarbonisation overlook existing inequalities;

6. ignoring energy practices could deepen fuel poverty, but relying on them could disempower householders.

Decarbonisation & fuel poverty

Figure 2: UK emissions in 2019

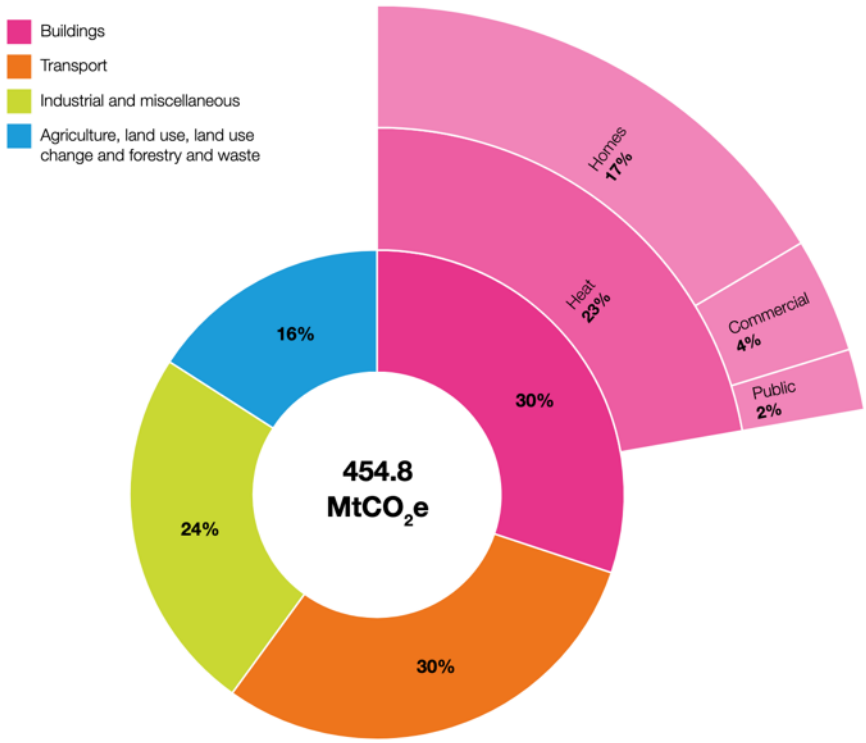


Figure 4: Proportion of fuel poor households (England)

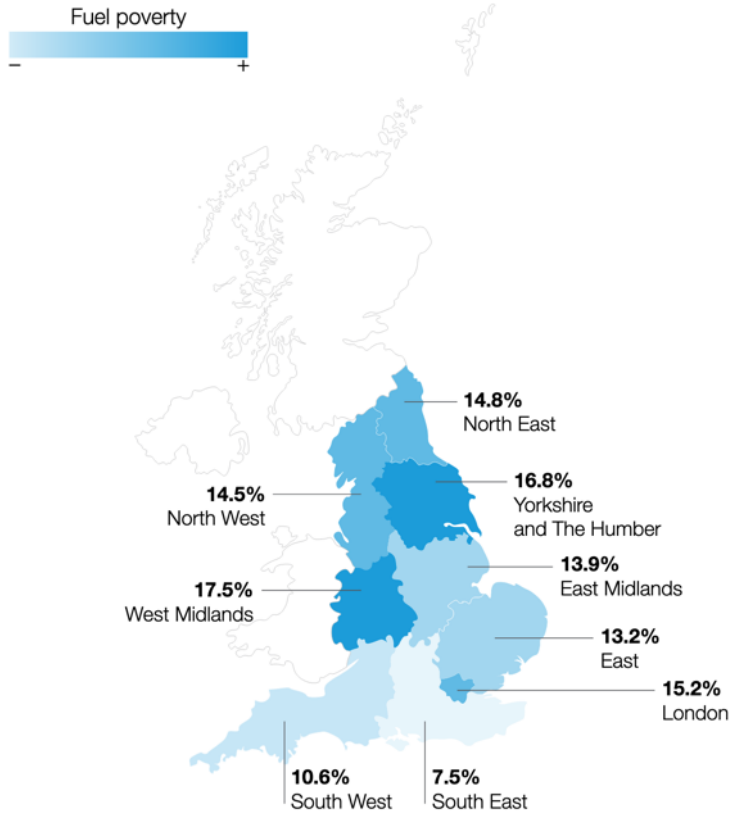
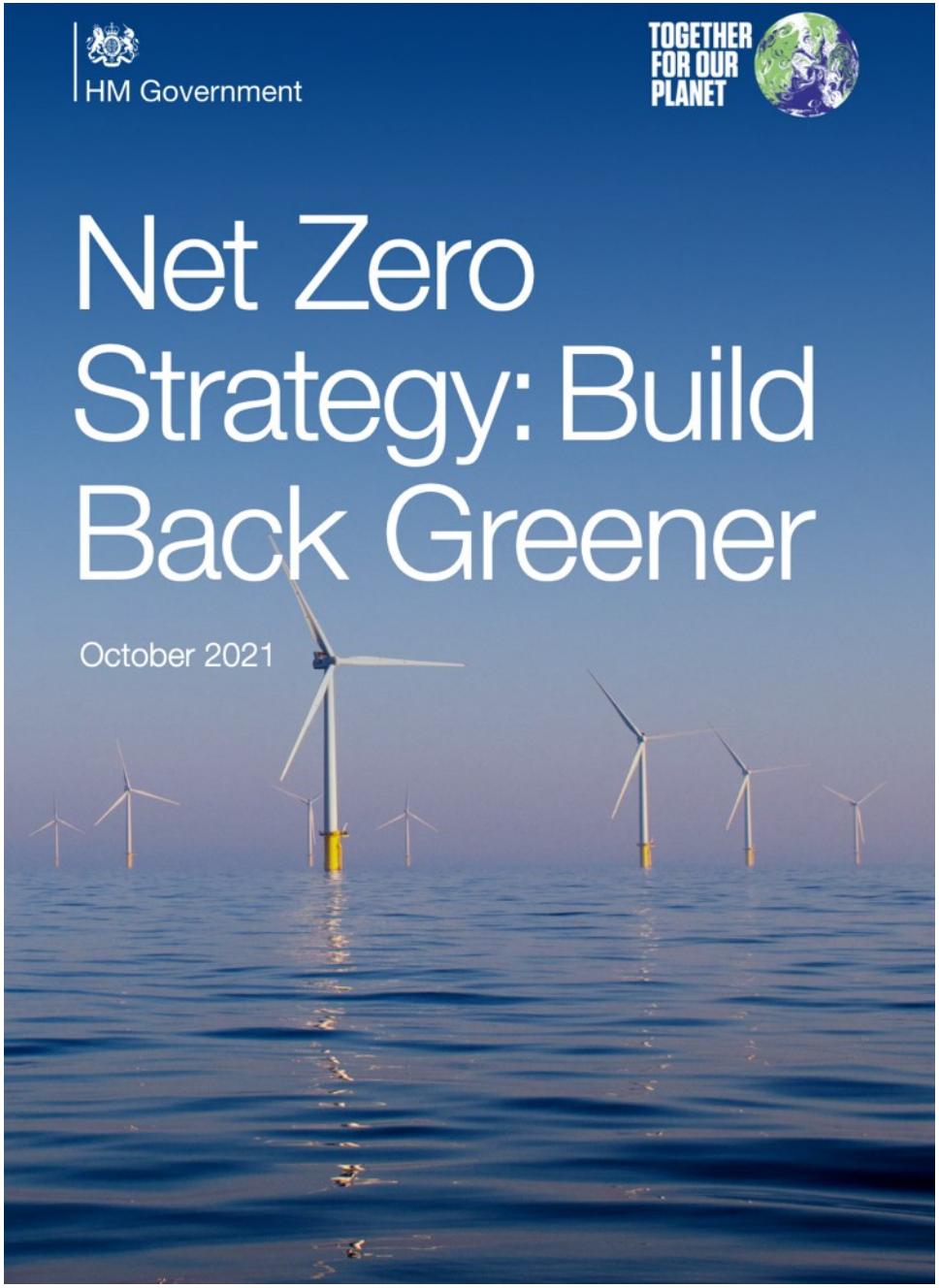


Figure 4 shows that the proportion of households living in fuel poverty varies across England.[145,146] Additional support for low income and fuel poor homes can help to level up different regions across the UK.

Energy Poverty

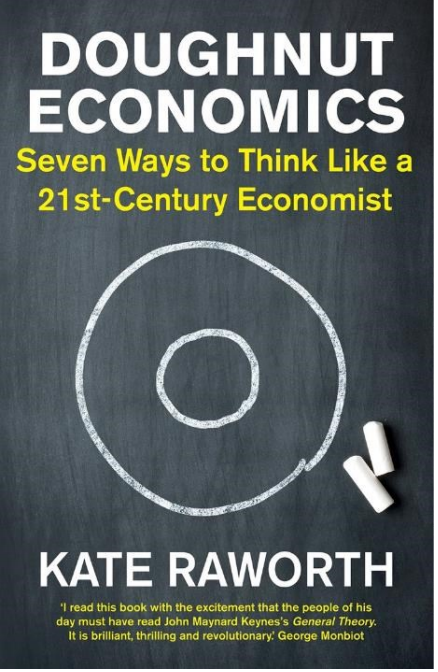
Climate Change

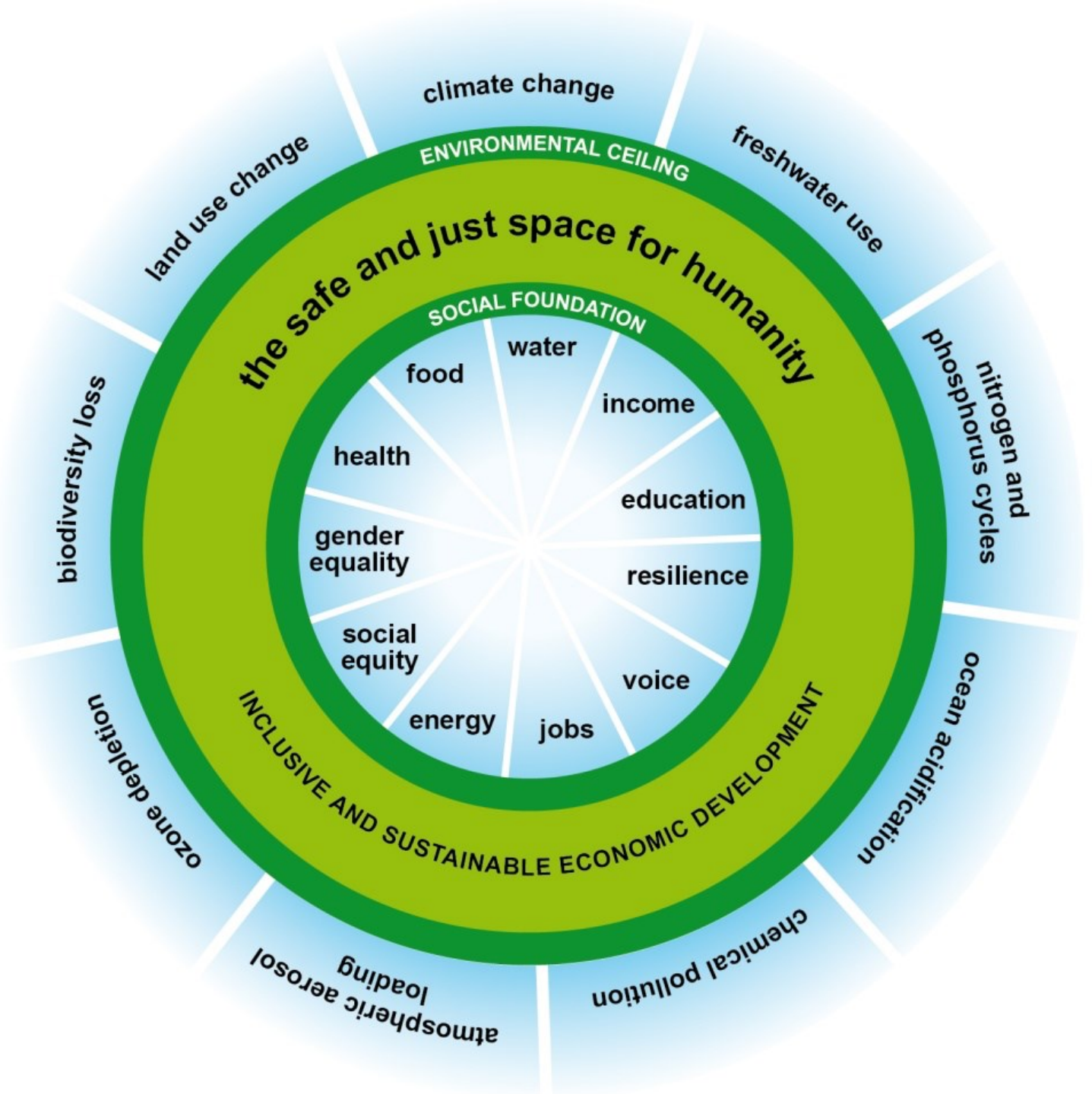
Decarbonisation



9. Decarbonising buildings will deliver a range of benefits:

- **Levelling up**. Decarbonisation will support clean, local growth in every region of the UK, while investing in equality of living standards and job creation. Reducing heat and buildings emissions will require installing energy efficiency measures and new heating systems, which rely on local supply chains and businesses.
- **Reducing energy bills and business operating costs**. Inefficient homes are more expensive to run. The Energy Efficiency Infrastructure Group estimate that upgrading all UK homes to EPC band C could provide annual energy cost savings of £7.5 billion.[63]
- **Tackling fuel poverty**. In 2014, the Government introduced a statutory fuel poverty target for England, to improve as many fuel-poor homes as is reasonably practicable to a minimum EPC rating of band C by the end of 2030. Tangible, targeted support for more deprived areas can be achieved through action to upgrade poor-performing buildings, leading to warmer, healthier homes and lower energy bills. We recently published an updated fuel poverty strategy for England.[64]


DOUGHNUT ECONOMICS
Seven Ways to Think Like a 21st-Century Economist
KATE RAWORTH
'I read this book with the excitement that the people of his day must have read John Maynard Keynes's General Theory. It is brilliant, thrilling and revolutionary.' George Monbiot


climate change
freshwater use
nitrogen and phosphorus cycles
ocean acidification
chemical pollution
atmospheric aerosol loading
ozone depletion
biodiversity loss
land use change
ENVIRONMENTAL CEILING
the safe and just space for humanity
SOCIAL FOUNDATION
water
income
education
resilience
voice
jobs
energy
social equity
gender equality
health
food
INCLUSIVE AND SUSTAINABLE ECONOMIC DEVELOPMENT

WEST END FINAL

Evening Standard

FREE LONDON TUESDAY 19 JULY 2022

24/7 ONLINE NEWS STANDARD.CO.UK

Sweltering: commuters brave the heat in London today

HOTTEST IN HISTORY

» WARMEST NIGHT ON RECORD AS TEMPERATURES EXPECTED TO TOP 40C

Ross Lydall, Anna Davis and Rachael Burford

LONDONERS were today sweltering in the record-breaking heatwave with temperatures predicted to top 40C – after the hottest night in history.

Millions suffered disturbed sleep with temperatures staying above 25C. Today the heat was predicted to reach a historic high of 41C in some areas, ahead of another roasting night.

As Network Rail closed King's Cross station and issued a "do not travel" warning, Tube services were again axed or faced "severe delays" and emergency services were prepared for more Londoners succumbing to the extreme heat. In key developments:

● An increased number of schools were closed, including some that had pledged to remain open, after temperatures reached 42C in classrooms. Many were sending pupils home early.

● Train services across the country were again disrupted, with most Thameslink and Great Northern services in London cancelled. LNER did not run trains from York to King's Cross.

● Transport Secretary Grant Shapps admitted it would take "decades" to upgrade the UK's rail and road network so it could cope with extreme weather.

● Police resumed a search for a 14-year-old boy believed drowned in the Thames. He had been seen entering the water yesterday afternoon at Tagg's Island in East Molesey, near Hampton

Continued on Page 2

Europe's heatwave may have caused more than 20,000 'excess' deaths

By Juliette Portala

REUTERS®

5 best portable air conditioning units that make hot days a breeze

Move these handy appliances between rooms to circulate a deliciously icy breeze

Siobhan Grogan • Wednesday 21 September 2022 11:31

FYI

We updated this article on 21 September to reflect price changes throughout

Best portable power stations UK 2022: prepare for power outages with generators from Anker, EcoFlow, Jackery

The National Grid announcement that power cuts may be applied this winter caused a general increase in public Google searches for portable power stations

By Derek Adams
17th Oct 2022, 1:42pm

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WIND TURBINES IN ORKNEY - IMAGE BY COLIN KELDIE/SOLO ENERGY

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‘The geography is vast, and it’s not just simple to get to the home visit and back up. One home visit might take you a whole day’ (SH4).

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Behaviour

Top tips for saving energy at home

There are many ways to save money on electricity bills whilst working from home. Here are some easy things you can add to your routine to save energy and reduce your carbon emissions.

Press
Switch off appliances at the wall

Pull
Pull out chargers while not in use

Twist
Replace regular bulbs with energy efficient ones

Boil
Only boil the water you need

Match
Use the right sized hob for your pan when cooking

Close
Close your curtains and blinds to keep the heat in more effectively

Seal
Seal or block any windows or doors

Wear
Put on extra layers when it's cold indoors

Turn
Turn down the thermostat one degree

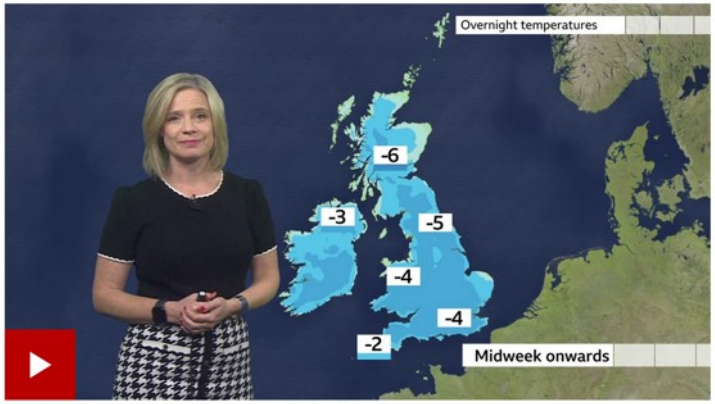
Insulate
Check your insulation is topped up in your roof

Switch
Spend one less minute in the shower every day

Fit
Install a water efficient showerhead

UK weather: People urged to heat main rooms as cold snap begins

3 hours ago



Sarah Keith-Lucas has details of the wintry weather due this week

'Heat the human, not the home': Martin Lewis guide for 'desperate' households

Money Saving Expert offers tips from heated insoles to layers of clothing in 'damning indictment' of cost of living crisis

Martin Lewis' guide offers a list of options for those struggling to heat their homes. Photograph: Andy Rain/EPA

Passive House

SHUSU

http://usir.salford.ac.uk.salford.idm.oclc.org/id/eprint/46328/

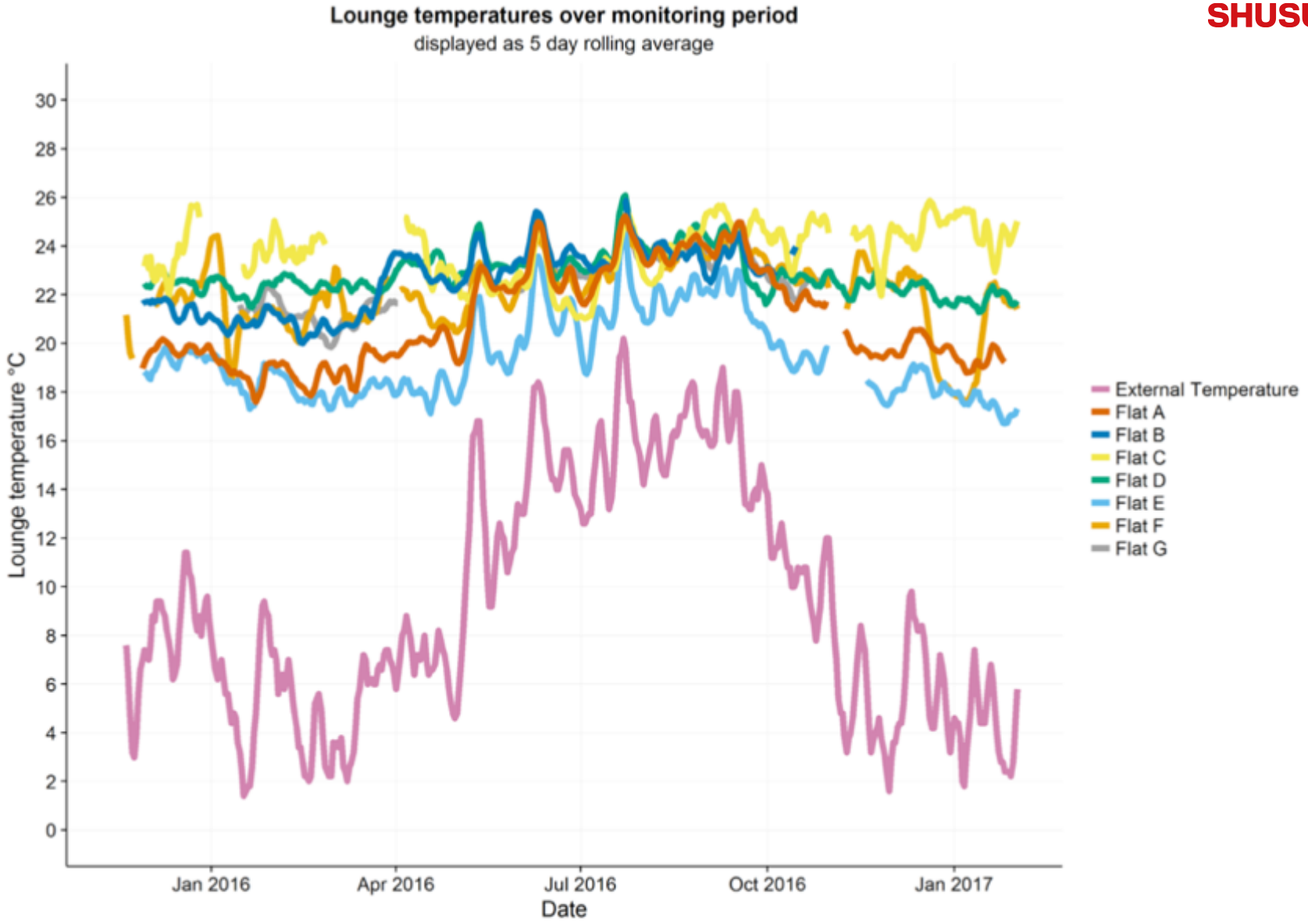
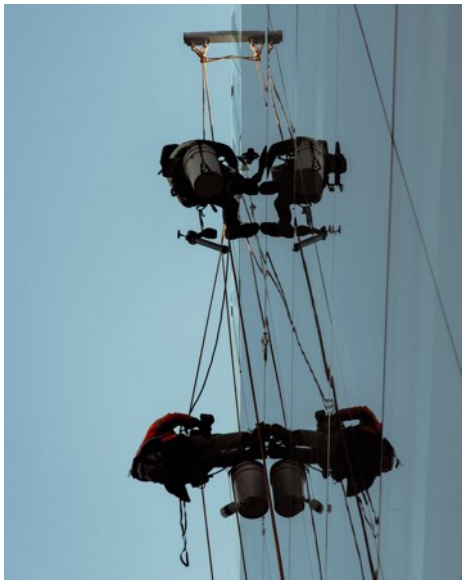
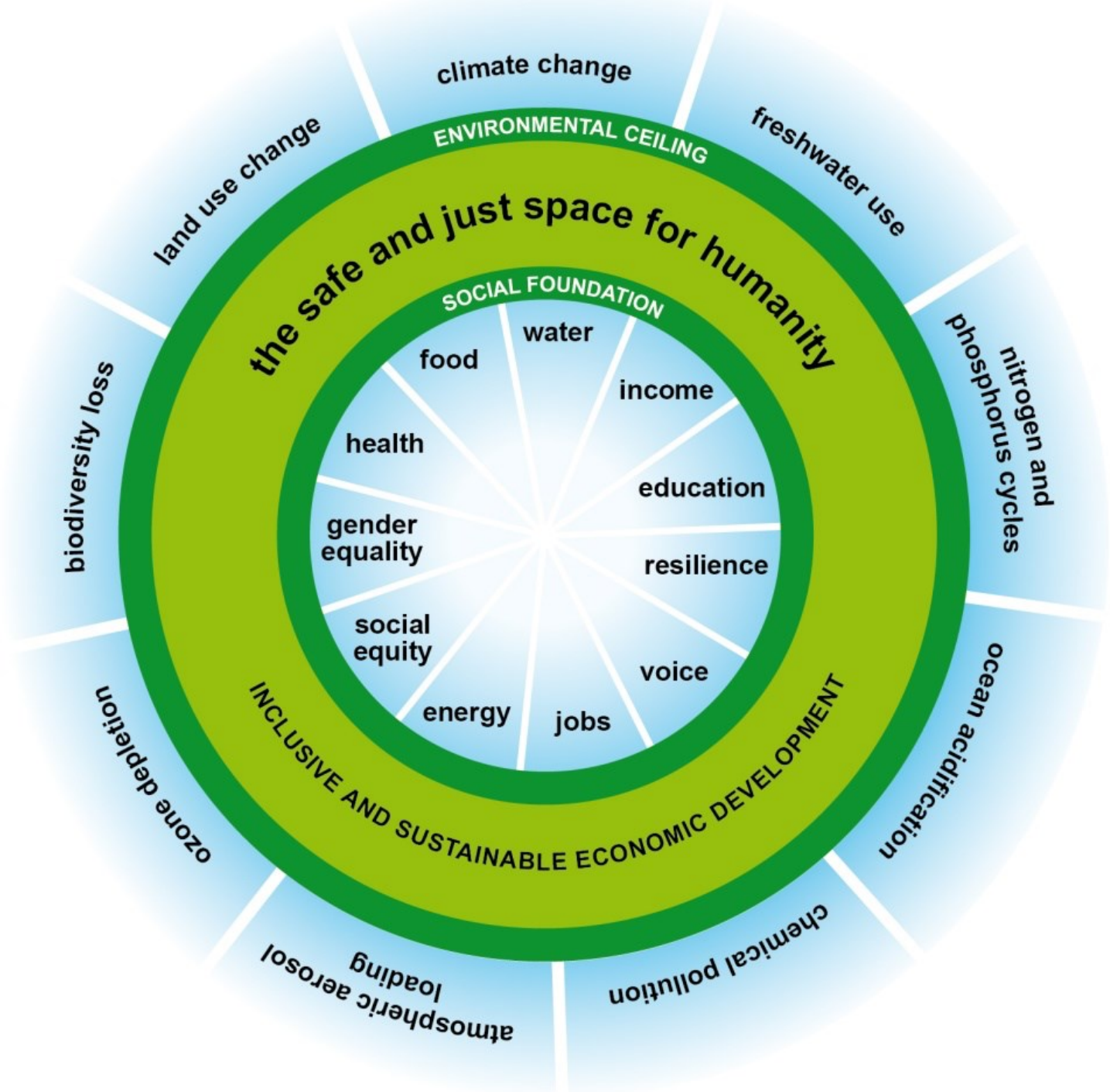


Figure 8 - Lounge Temperature with adaptive thermal comfort zones, Flat A


ZON
ZON




climate change
land use change
freshwater use
biodiversity loss
nitrogen and phosphorus cycles
ozone depletion
ocean acidification
atmospheric aerosol loading
chemical pollution
ENVIRONMENTAL CEILING
the safe and just space for humanity
SOCIAL FOUNDATION
water
food
income
health
education
gender equality
resilience
social equity
voice
energy
jobs
INCLUSIVE AND SUSTAINABLE ECONOMIC DEVELOPMENT

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SHUSU
SUSTAINABLE HOUSING & URBAN STUDIES UNIT

FPRN
FUEL POVERTY RESEARCH NETWORK

Maya Fitchett
Policy Analyst

National Energy Action

- The UK's leading fuel poverty charity
- Founded by volunteers in Durham
- Operate across England, Wales and Northern Ireland
- Both advisory and advocacy service

Our Fuel Poverty Monitors

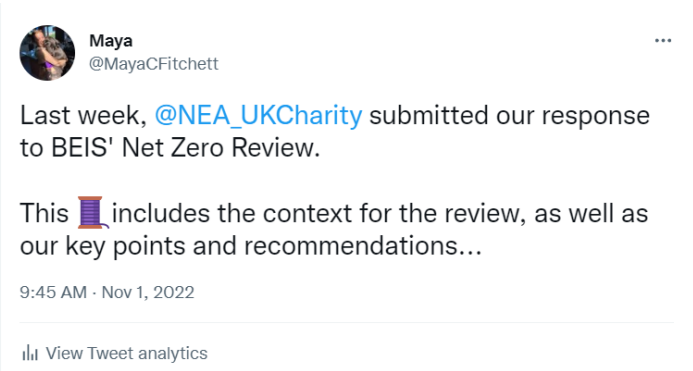
- Publishing UKFPM's for two decades
- Assess and review policies which are aimed at or affect fuel poverty
- Identify gaps in support and provide recommendations
- Relevant theme

A fair and affordable transition to Net Zero

- ‘Worst first’ principle
- Reducing reliance on fossil fuels
- Statutory Net Zero and Fuel Poverty Targets
- Fuel poor households pay disproportionately

NEA's response to the Net Zero Review: Call for evidence

- ToR – pro-growth, pro-business – deprioritising 'fair' and 'affordable'
- Huge growth potential
  - Job creation
  - Export of green goods and services
  - Reduced fiscal spending on emergencies
- Particularly under 'worst first'…
  - Low-income households' propensity to spend
  - Healthier population
  - Reduced NHS spending



NEA's response to the Net Zero Review: Call for evidence

Recommendations:

- Low-income and vulnerable households must be prioritised as we look to decarbonise homes.
- The review must prioritise the identification and mitigation of any negative impacts of the transition to net zero on low-income and vulnerable households.
- The review must signal a strong commitment to meeting the fuel poverty target.
- The transition to net zero must be accompanied by an education and training programme in order to fill the skills gap.

Fuel Poverty Monitor 2020 – 21

“Every home should be a warm and safe place”

- Fuel Poverty Monitor 2020 – 21 focused on decarbonising heat
  - Opportunities
  - Barriers to decarbonisation
  - (Lack of) Transparency
  - Recommendations

Fuel Poverty Monitor 2020 – 21 (*Barriers*)

Financial Barriers

- Upfront costs
- ‘Hidden’/ancillary costs
- Transition costs
- Arrears
- Standing charges

Physical Barriers

- Energy inefficiency homes
- Rural homes
- Skills and training gap

Fuel Poverty Monitor 2020 – 21 (*Barriers*)

Awareness and Advice Barriers

- Lack of awareness around suitable technologies
  - Gaps in advice
- Lack of central funding
  - Area-specific
- Lack of consumer protection

Policy and Regulatory Barriers

- Lack of funding
- Poor design
- Short-term schemes = lack of confidence
- Gaps in policy and lack of clarity
  - Cost of electricity
- Poorly enforced standards in PRS

Fuel Poverty Monitor 2020 – 21 (*Recommendations*)

Financial

- Adequate funding for 2025 targets
- Ban household contributions under ECO and other low-income schemes
- Remove policy costs
- Ofgem support for uprating connections
- Ofgem good practice guide for transitions

Physical

- ‘Fabric first’
- Increase cost caps on grant schemes
- Long-term funding outlook
- Additional support for rural households

Fuel Poverty Monitor 2020 – 21 (*Recommendations*)

Awareness and Advice

- Advice for digitally-excluded households
- Energy included in digital inclusion and numeracy strategies and training
- Improve decarbonisation advice
- Apply standards in pragmatic way
- Redress mechanisms

Policy and Regulatory

- Extend regulations in the PRS
- Funding for private landlords with fuel poor tenants
- Landlord register
- Update on Decent Home Standard

Transparency

- Reinstate policy costs report
- Commit to long-term price protection mechanism
- Impact assessments at granular level

Fuel Poverty Monitor 2021 - 22

- Looking at the impacts of the energy crisis
- For publication January 2023
- Informed by Call for Evidence – clients, stakeholders and general public
- First-hand experience – case studies

Fuel Poverty Monitor 2021 – 22 (*Identifying Problems*)

Conclusions in five key areas:

- Households living on the lowest incomes, in the least efficient homes are being hardest hit
- Households in intersecting categories of vulnerability are disproportionately affected
- Households using pre-payment meters face the worst outcomes without support
- Organisations cross-sector need to collaborate
- Deeper, targeted support needed

Fuel Poverty Monitor 2021 – 22 *(Providing Recommendations)*

The report makes recommendations across five key areas:

- Better identifying the households that require financial support
- Providing specific support to prepay households to minimise self-disconnections
- Ensuring that those most affected by the crisis are the priority for future support
- Providing support for fuel-poor households from organisations beyond the national governments
- Accelerating a fair and affordable transition to Net Zero

Thank you for your time.

maya.fitchett@nea.org.uk

Friends of the Earth

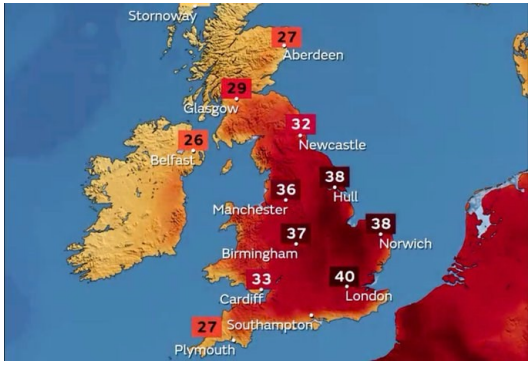
Energy crisis hotspots and what we can do about them

Tony Bosworth
Climate change campaigner
Friends of the Earth England, Wales & Northern Ireland

What I'll talk about

- The energy bills and climate crises
- What are energy crisis hotspot areas?
- Where are they?
- What we can do about them

The energy bills and climate crises



Overlapping causes:

- Poor home energy efficiency
- Over-dependence on gas
- Not enough development of renewables

“Reducing energy demand in UK buildings is now the biggest gap in current Government energy policy”

(Climate Change Committee, November 2022)

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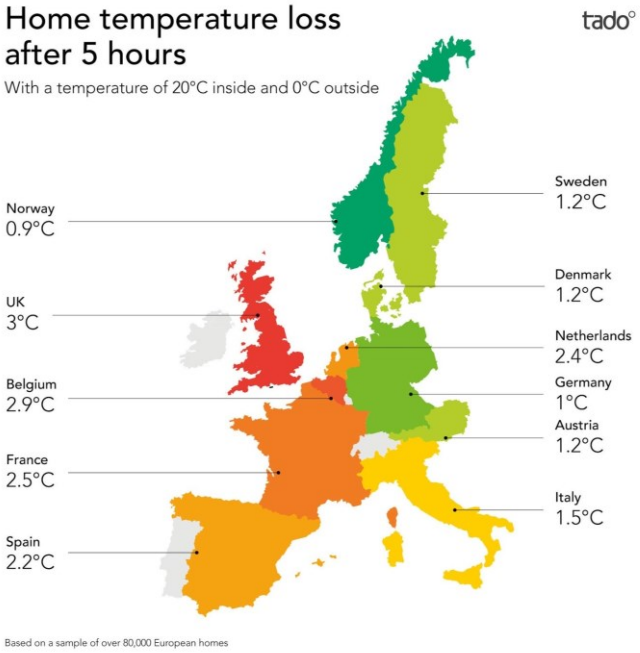
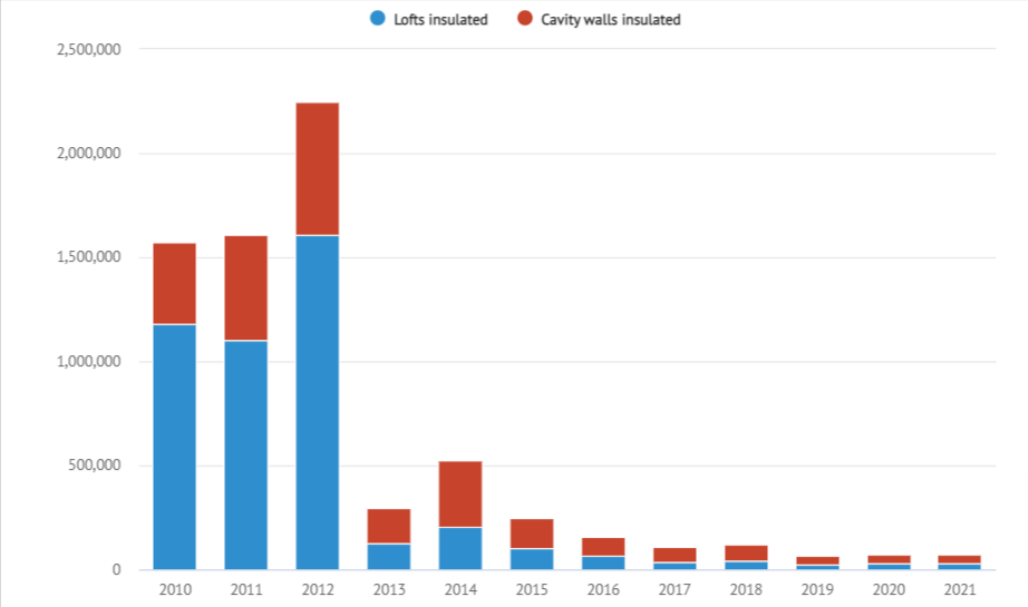
Poorly insulated homes



Decline in insulation fitted



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What are energy crisis hotspot areas?

Based on Office for National Statistics Lower Layer Super Output Areas (LSOAs)

Neighbourhoods with an average population of around 1700 people

Energy crisis hotspots are where:

- Typical household income is below the national average
- Typical fuel bills are above the national average

Use data from Index of Multiple Deprivation, government data on electricity and gas consumption, data on fuel prices

Friends of the Earth

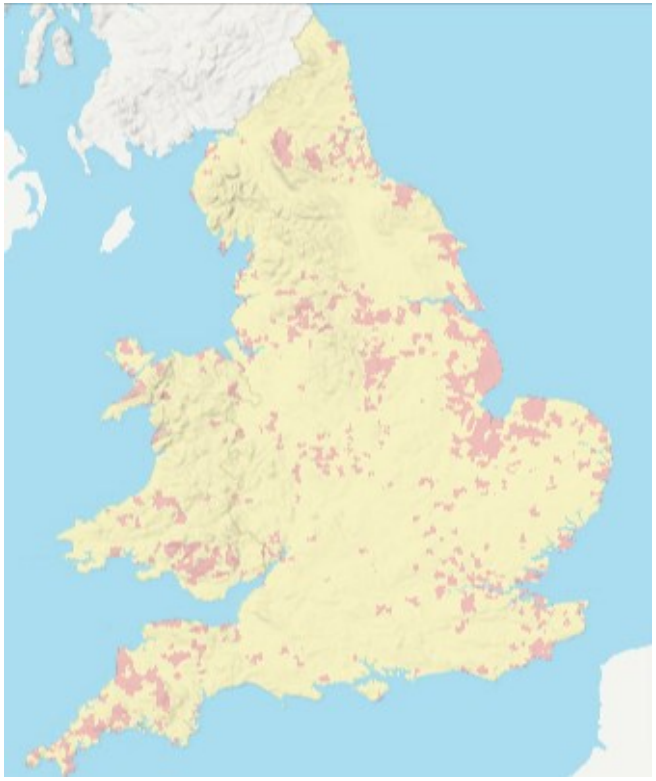
The results

34,753 LSOAs in England & Wales

8,927 energy crisis hotspot areas (26%):

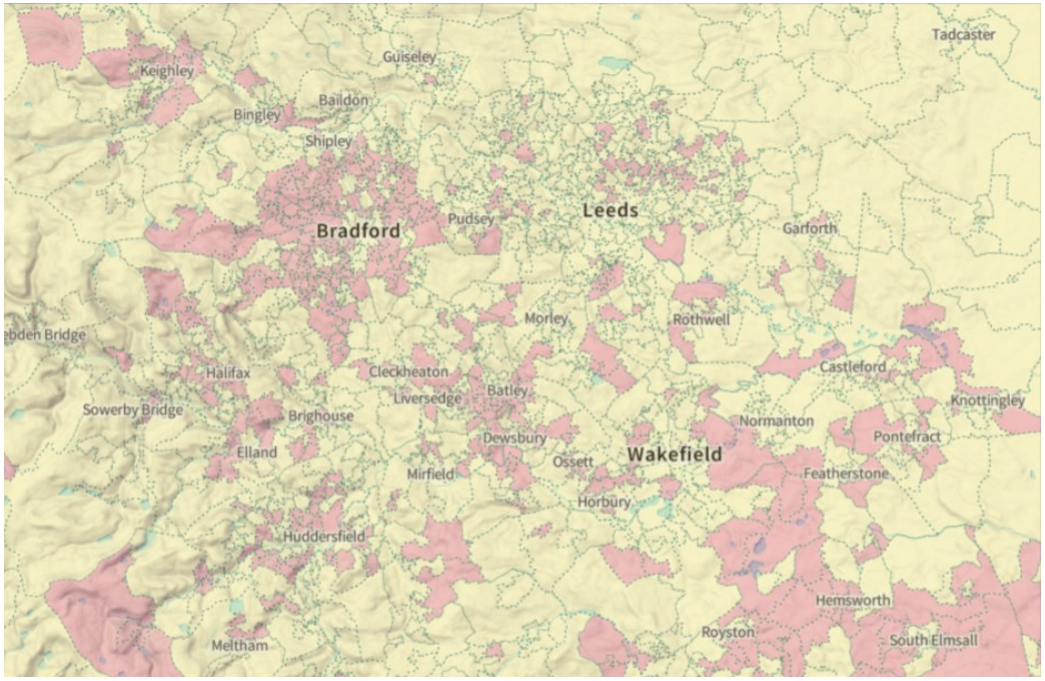
- 6.3 million households, 15.2 million people
- A higher number of children than average
- Twice the proportion of people of colour than other neighbourhoods

Map at https://friendsoftheearth.uk/climate/energy-crisis



Friends of the Earth

Where are the hotspot areas?



Friends of the Earth

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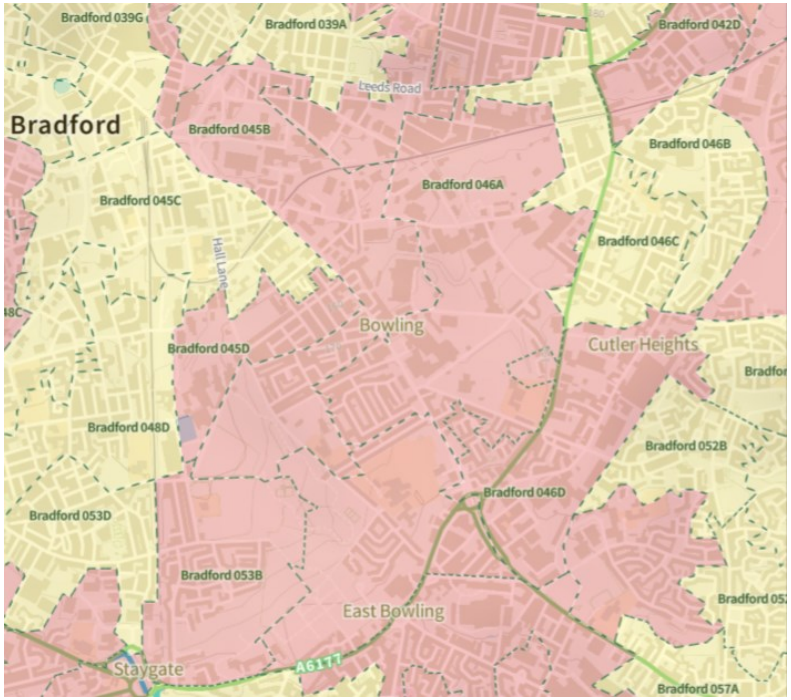

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Where are the hotspot areas?

National ‘Top 10’ – number of hotspots in a council area

Birmingham	415
Bradford	162
Cornwall	150
Sandwell	116
County Durham	111
Enfield	111
Croydon	105
Leicester	96
Walsall	95
Brent	95

Where are the hotspot areas?

Northern ‘Top 10’ - number of hotspots in a council area	
Bradford	162
County Durham	111
Kirklees	91
Manchester	89
Liverpool	82
Doncaster	78
Sheffield	76
Leeds	75
Wakefield	62
Sefton	60

Where are the hotspot areas?

National ‘Top 10’ - hotspots as a percentage of all LSOAs in a council area

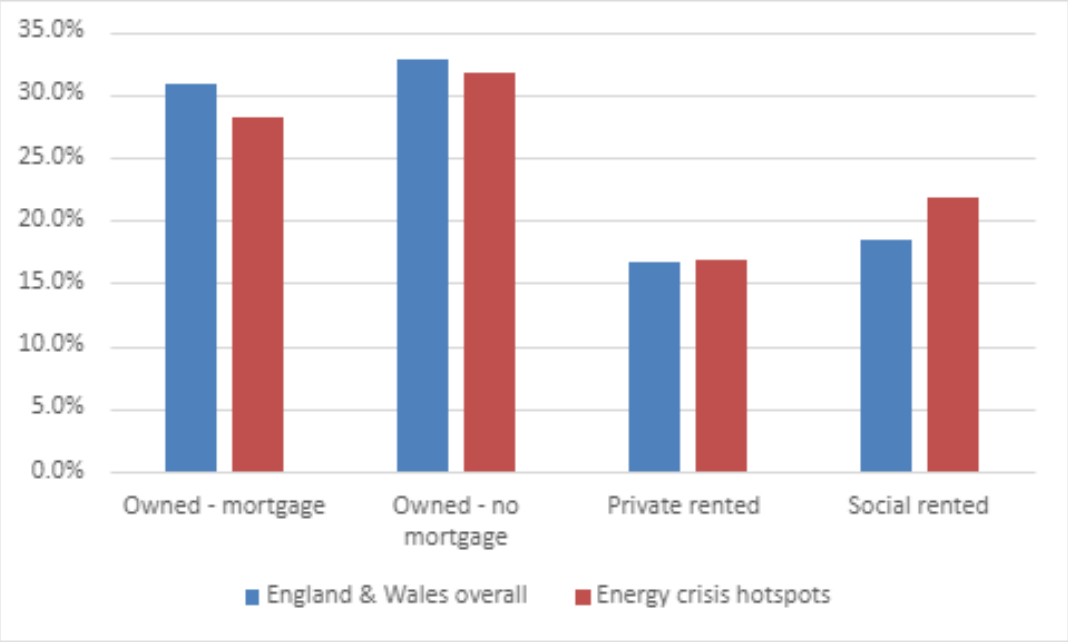
Fenland	70.9%
Blaenau Gwent	70.2%
Birmingham	64.9%
Merthyr Tydfil	63.9%
Bolsover	62.5%
Sandwell	62.4%
Enfield	60.7%
Blackpool	59.7%
Wolverhampton	58.9%
Caerphilly	58.2%

Where are the hotspot areas?

Northern ‘Top 10’ - hotspots as a percentage of all LSOAs in a council area

Blackpool	59.7%
Rossendale	58.1%
Bradford	52.3%
Blackburn/Darwen	49.5%
Burnley	45.0%
Pendle	42.1%
Doncaster	40.2%
Knowsley	39.8%
Calderdale	35.9%
Kirklees	35.1%

Tenure in energy crisis hotspots



Friends of the Earth

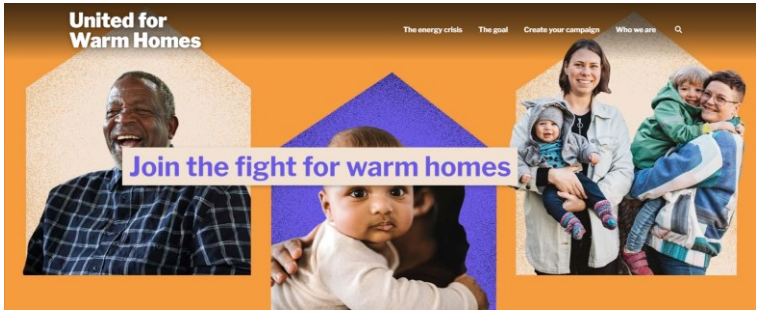
The energy bills and climate crises

Need to look at the two together

Overlapping solutions:

- Support for those who need it most
- Energy efficiency – street-by-street insulation programme to cut bills and emissions. Start in hotspot areas.
- Move to renewables – cheaper and greener

This is what Friends of the Earth's 'United for Warm Homes' campaign is calling for.



Friends of the Earth

Street-by-street insulation: measures

Based on work for us by New Economics Foundation

Basic measures that:

- Can be installed relatively cheaply, quickly and easily
- Cut costs and emissions in the short term

The measures:

- Loft and cavity wall insulation
- Draught-proofing
- Thermostatic radiator valves and smart thermostats
- Energy advice

These measures on their own won't take a property up to EPC 'C'

Not just Friends of the Earth….

“The next two years should be a period for a concerted push to improve rates of loft and cavity wall insulation, draught-proofing and installing modern tools to manage energy use (such as smart thermostats, thermostatic radiator controls and smart meters).”

(Climate Change Committee, November 2022)

Street-by-street insulation: costs and savings

PROPERTY TYPE	INSTALLATION COST	ANNUAL SAVING	PAYBACK (years)
Semi	£1,158	£272	4.26
End terrace	£953	£202	4.72
Mid terrace	£959	£216	4.44
Flat/maisonette	£958	£199	4.81
Detached	£1,526	£406	3.76
Bungalow	£1,116	£246	4.54

Figures assume all measures are installed but every property will not need every measure.

Street-by-street insulation: costs and savings

NEF looked at an illustrative neighbourhood in Blackpool:

- 670 properties, 18% of households in fuel poverty
- 54% social rented, 33% owner-occupied, 14% private rented
- 41% semi-detached, 37% terraces, 19% flats/maisonettes, 3% detached

Total installation costs = c£670,000

Annual savings = c£158,000

Scale-up to whole authority (94 LSOAs):

- Total installation cost = £63 million
- Annual savings = £15 million

Street-by-street insulation: costs and savings

Providing basic measures free to all 6.3 million households in energy crisis hotspot areas in England & Wales would cost £6.9 billion

Introducing a 25% ‘efficiency factor’ (from economies of scale) reduces this to £5.2 billion

Free provision to all areas of England & Wales (excluding top 25% wealthiest neighbourhoods) would cost £15 billion

Who should deliver this?

Key co-ordination role for local authorities or groups of authorities

Why a street-by-street programme?

- Increases participation
- Cost savings through economies of scale
- Builds trust

Need for skills and training

But more needed

Deeper retrofits to get all properties up to EPC ‘C’:

- Double-glazing
- Solid wall insulation
- Underfloor insulation

And not just energy efficiency: changing how we heat homes - heat pumps

Much higher cost – different estimates

How to pay for it

To cover free measures and deeper retrofit:

- Government spending: £8 billion a year for the rest of the decade – paid for initially by a windfall tax on fossil fuel companies
- For ‘able to pay’ owner-occupiers: low or zero interest loans?
- For ‘unable to pay’ owner occupiers: obligations on energy companies and boiler retailers
- Private rented sector: increased Minimum Energy Efficiency Standards plus potential tax incentives
- Social-rented sector: needs government finance

Why should we do this?

Multiple benefits:

- Cuts energy bills
- Cuts carbon emissions
- Boosts local economy – cutting energy bills puts more money in people's pockets
- Creates jobs: IPPR North say 53,000 direct jobs from home retrofits in the north and 13,000 from fitting heat pumps
- Cuts NHS and social services costs: cold, damp and dangerous homes cost the NHS £2.5 billion a year

What could NHC do?

- As a consortium, lobby for additional expenditure on energy efficiency and delivered now, rather than in two years.

- As individual housing organisations, consider working with local Friends of the Earth groups to help us take the campaign message to tenants groups .

For further information

tony.bosworth@foe.co.uk

@tonybosworth

www.friendsoftheearth.uk

https://unitedforwarmhomes.uk

@friends_earth

https://friendsoftheearth.uk/climate/new-research-reveals-nearly-9000-energy-crisis-hotspots-england-and-wales

https://policy.friendsoftheearth.uk/download/councils-and-energy-crisis-plan-action

Friends of the Earth

Thank you

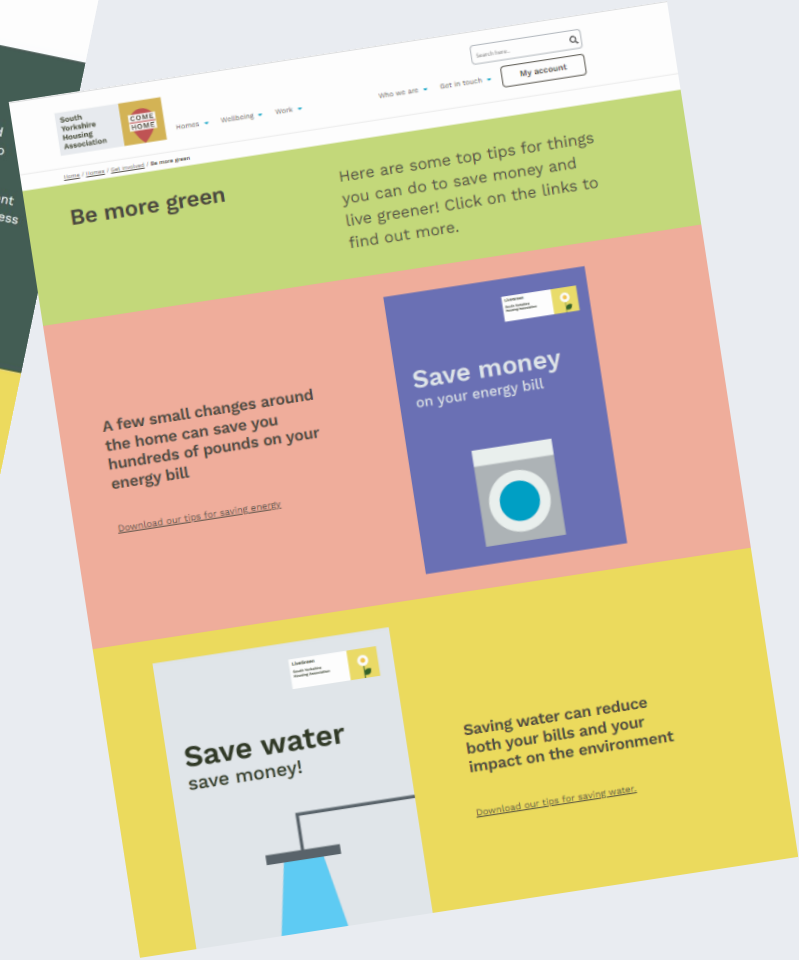
Customer engagement in Sustainability, Energy Efficiency & the NZC Journey

South Yorkshire Housing Association

COME HOME

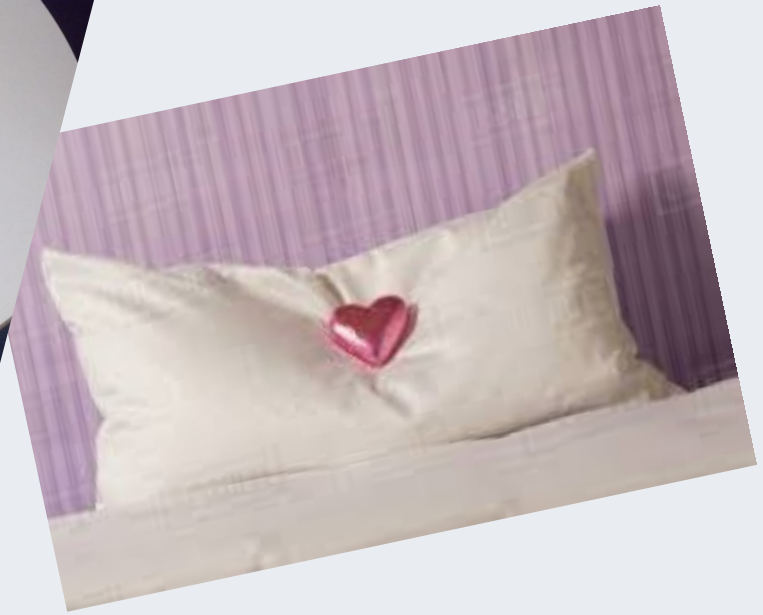
Where have we been?

Website Guidance



Where have we been?

Sustainability Starter Pack



Where have we been?

Boots on the Ground

Campaigns

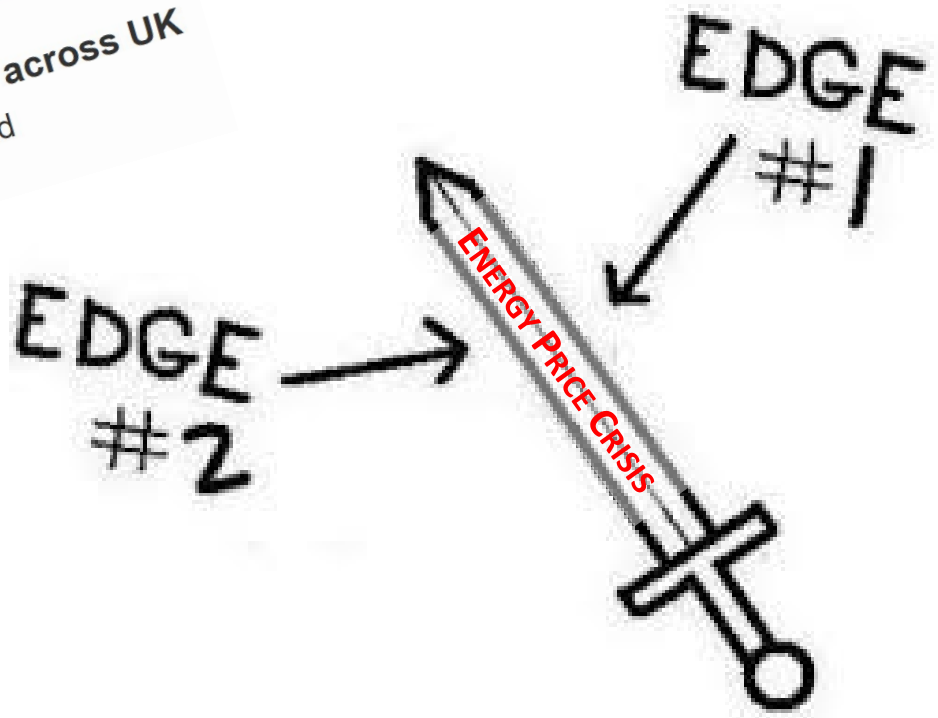
GREEN DOCTOR

GROUNDWORK
CHANGING PLACES
CHANGING LIVES

All very good, but ...

- Too passive
- Not the day job / resource & reach
- Simply not a priority for most households

What has changed?



So what are we on with now at SYHA?

- Customer support through the energy price crisis

- Customer engagement in NZC
  - Climate change & SYHA's contribution and plans
  - Working with customers to retrofit their homes
  - Supporting other lifestyle changes

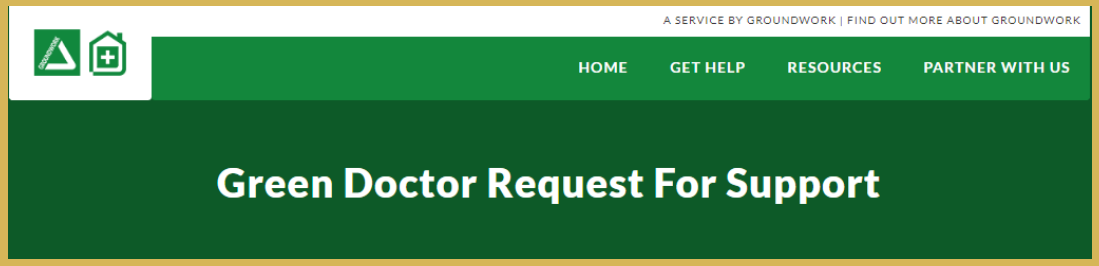
- Employee engagement in NZC:
  - A common level of understanding
  - Specific knowledge & skills to support the transition

Fuel Vouchers

Green Doctor – A New Approach

Offered to all new lets

In moment of need



Engagement in the NZC Transition
Why are SYHA doing this work?

SYHA wants to put the **customers at the heart of the decarbonisation journey**

Do with not too

Sheffield ‘100 Hours’ Student

- Interviews with other HAs
- Survey of customers

The University Of Sheffield.

Other Housing Associations
Key Findings

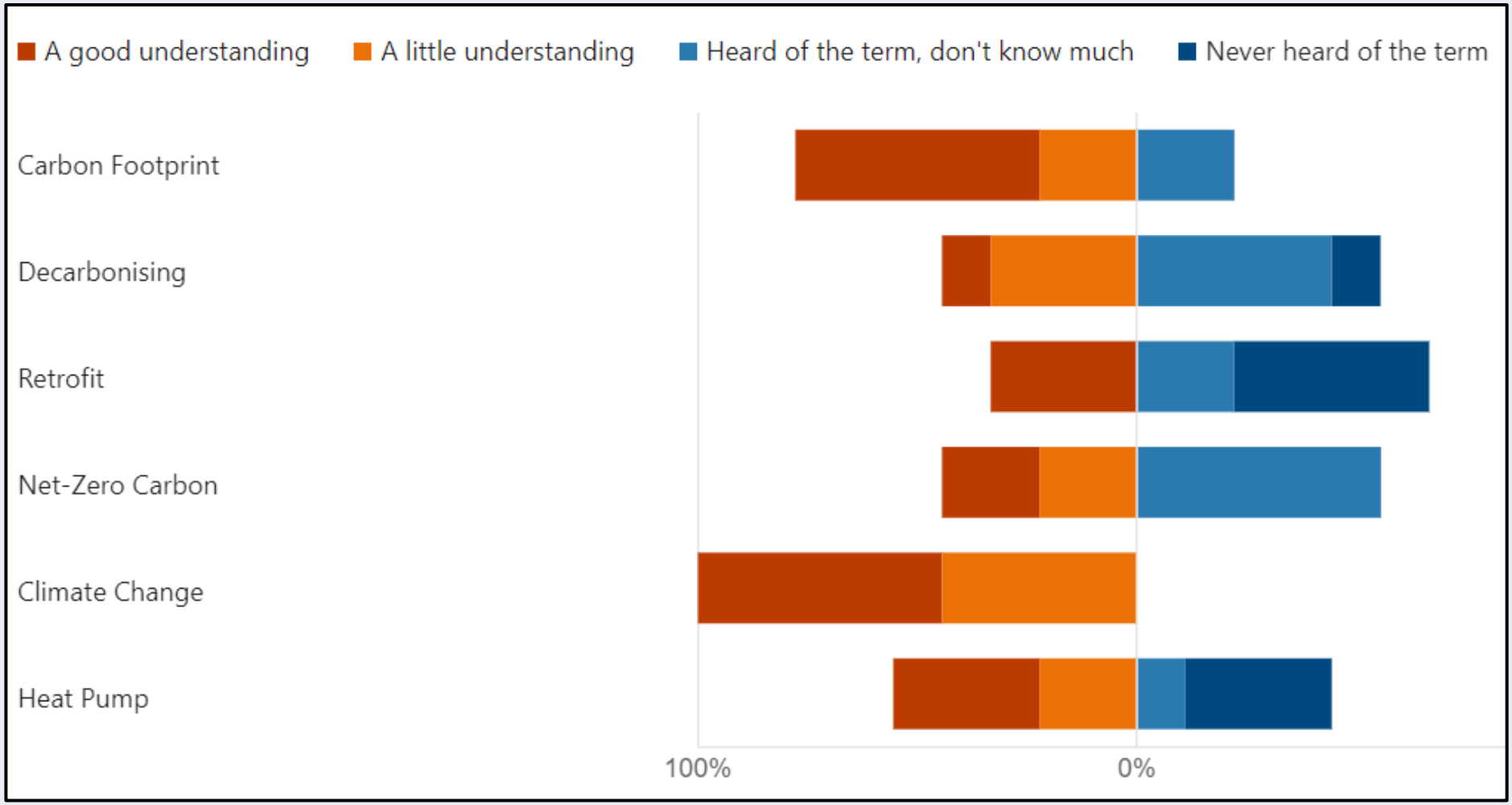
- Saving money resonates with customers the most
- Language Matters: Retrofit → Energy Efficiency.
- Known faces – Retrofit Customer Liaison Officers on the ground create trustworthy relationships with customers.
- The importance of community champions in spreading the word

Tenant Project Findings:

- 100% of customers answered saying they are concerned about climate change.

- Day to day impacts highlighted were extreme weather patterns, cost of living, and loss of wildlife.

Understanding of terms?



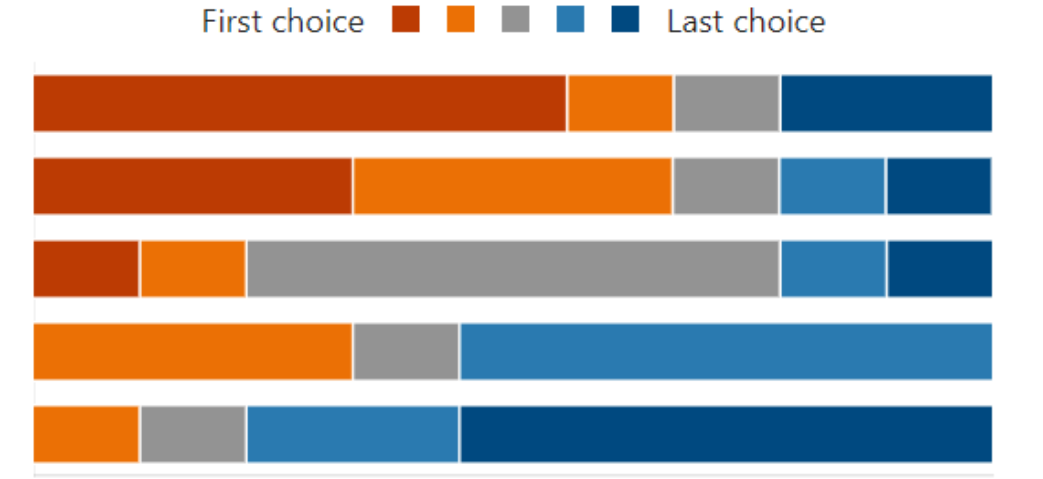
Taking Action on Climate Change

- All customers said they wanted to do more to .
- The most common changes suggested related to **energy efficiency** e.g. EVs, solar panels, heat pumps.
- Answers why this is not currently attainable were:
  - **financial cost**,
  - **the need for more information**,
  - **lack of global drive**.

Perceived Benefits of Retrofit

Insulation & Low Carbon Heating

1. It will have a positive impact on the climate
2. It will save money
3. It will be easier to heat my home to a comfortable temperature
4. It will improve air quality
5. The system and tech are easy to use



Requested support and information before and after the retrofit process

- Before:
  - **timescale**,
  - level of **disruption**,
  - **benefits**,

  - Being able to speak to a customer who has had the work done, or visit a retrofitted home **i.e. seeing is believing**.

- After:
  - **A direct contact** to discuss any potential problems, concerns, or to ask for advice.
  - Information on how to **easily use** the new technology.

100 hrs Recommendations

- A clear communication framework throughout SYHA, **and between HAs / LAs**
- On the ground customer liaison is vital
- Be flexible in engaging with customers different needs and motivations

PlaceShapers

Together we help communities thrive

TENANT ENGAGEMENT EXPERTS

tpas

NORTHERN HOUSING CONSORTIUM

VOICE OF THE NORTH

Where next?