



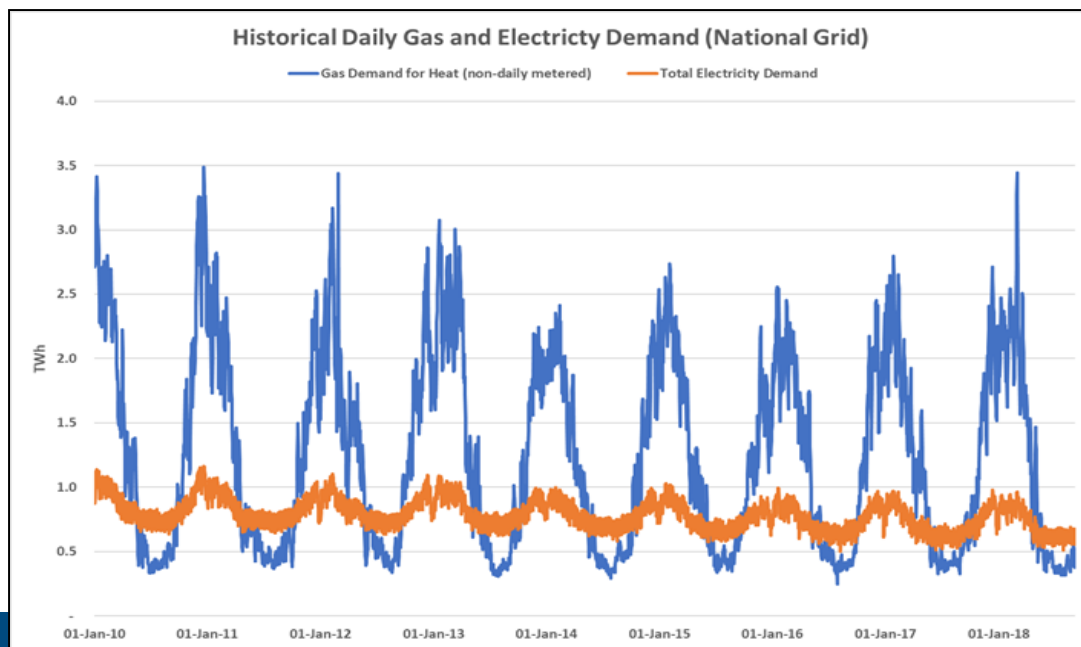
# Heat Decarbonisation

Facing the challenge

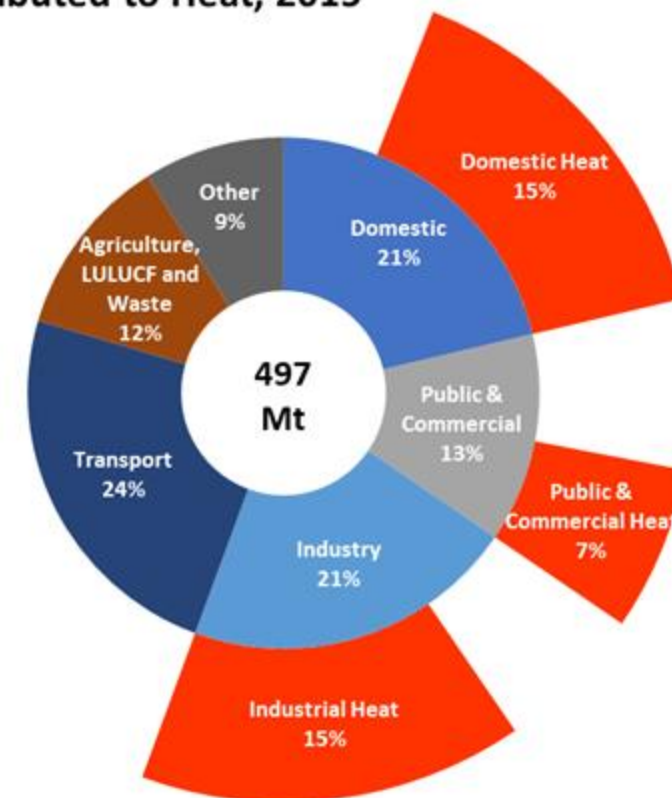
**Ground Source Heat Pump Association  
Members' Day 2019**

# What is the heat challenge?

- Heating is the single biggest reason we consume energy in our society and is responsible for over a third of our emissions
- Heat demand is highly seasonally variable and can be several times electricity demand during winter peaks

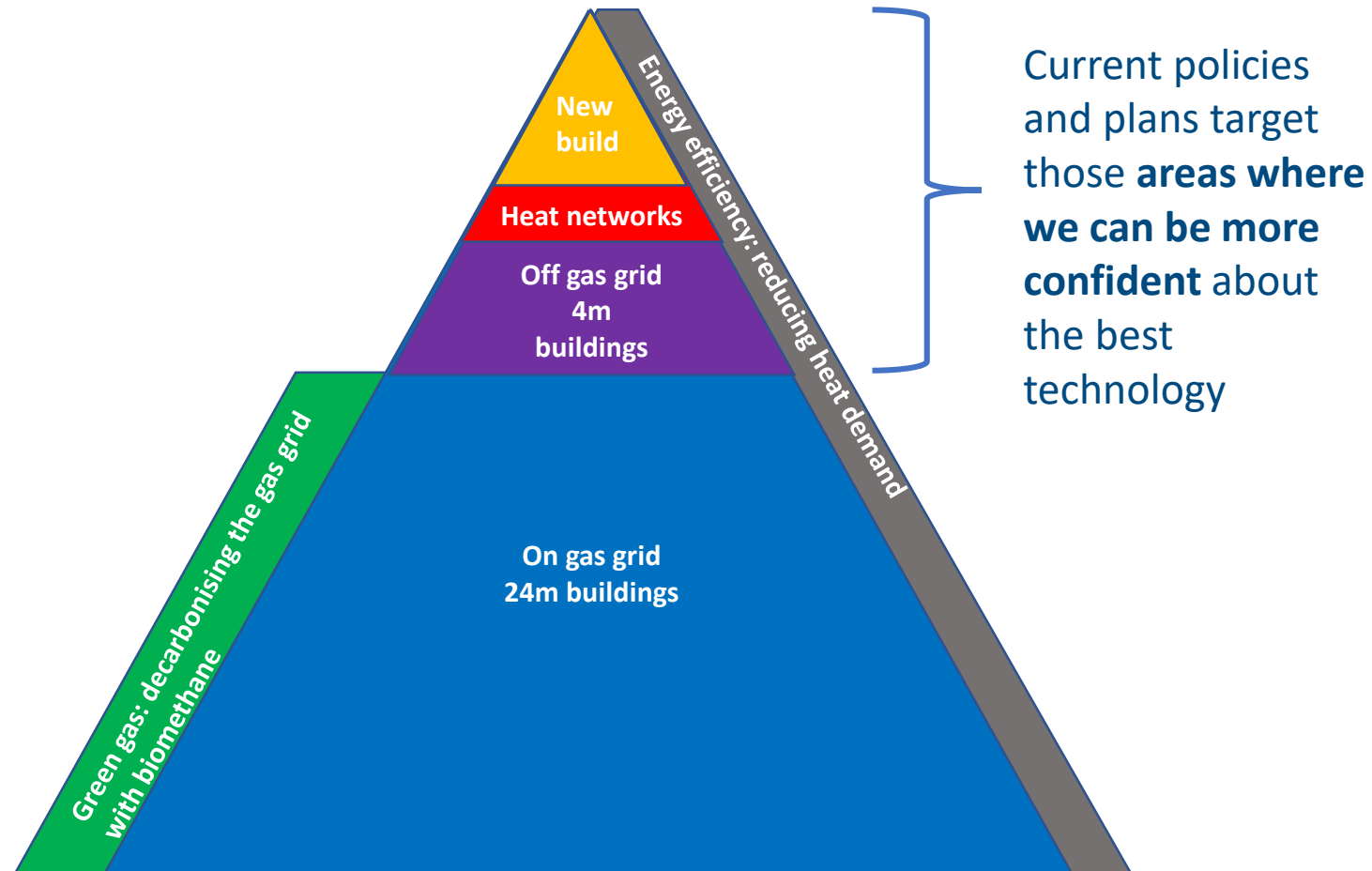


Estimated UK Emissions  
Attributed to Heat, 2015

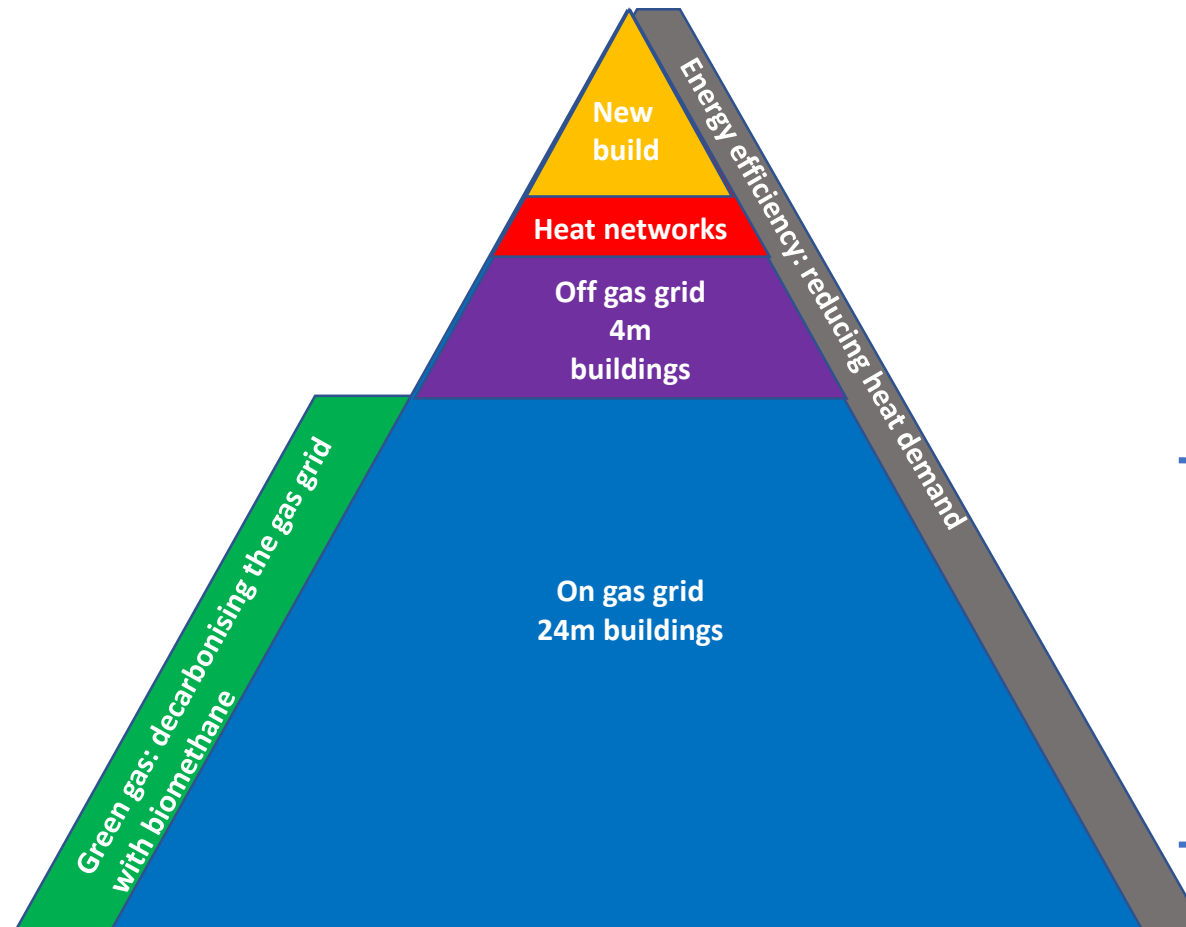


Source: BEIS estimates derived from ECUK 2016, EEP 2016, GHG Inventory 2017, BEIS IAG Guidance 2017

# How action is being targeted

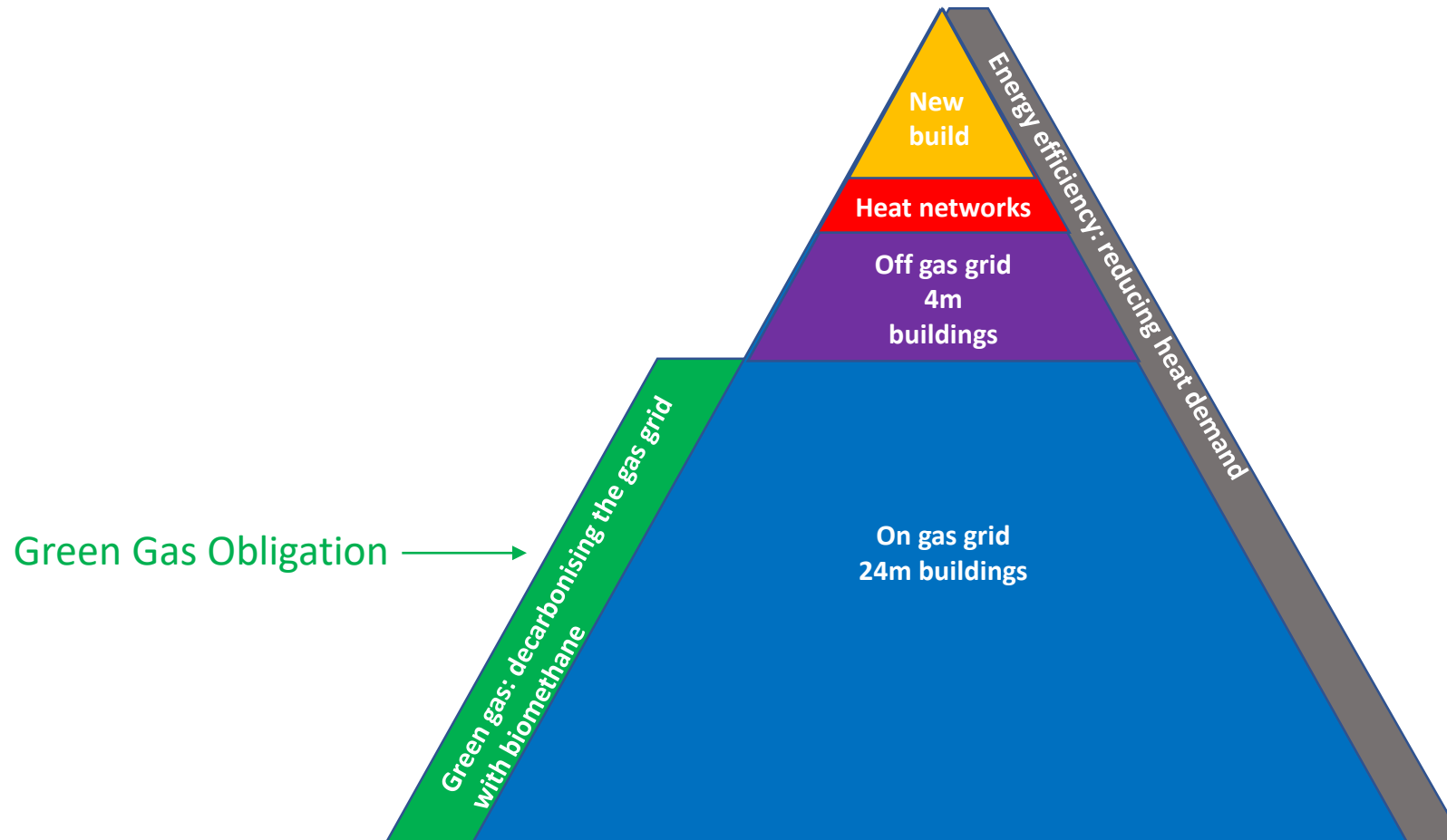


# How action is being targeted

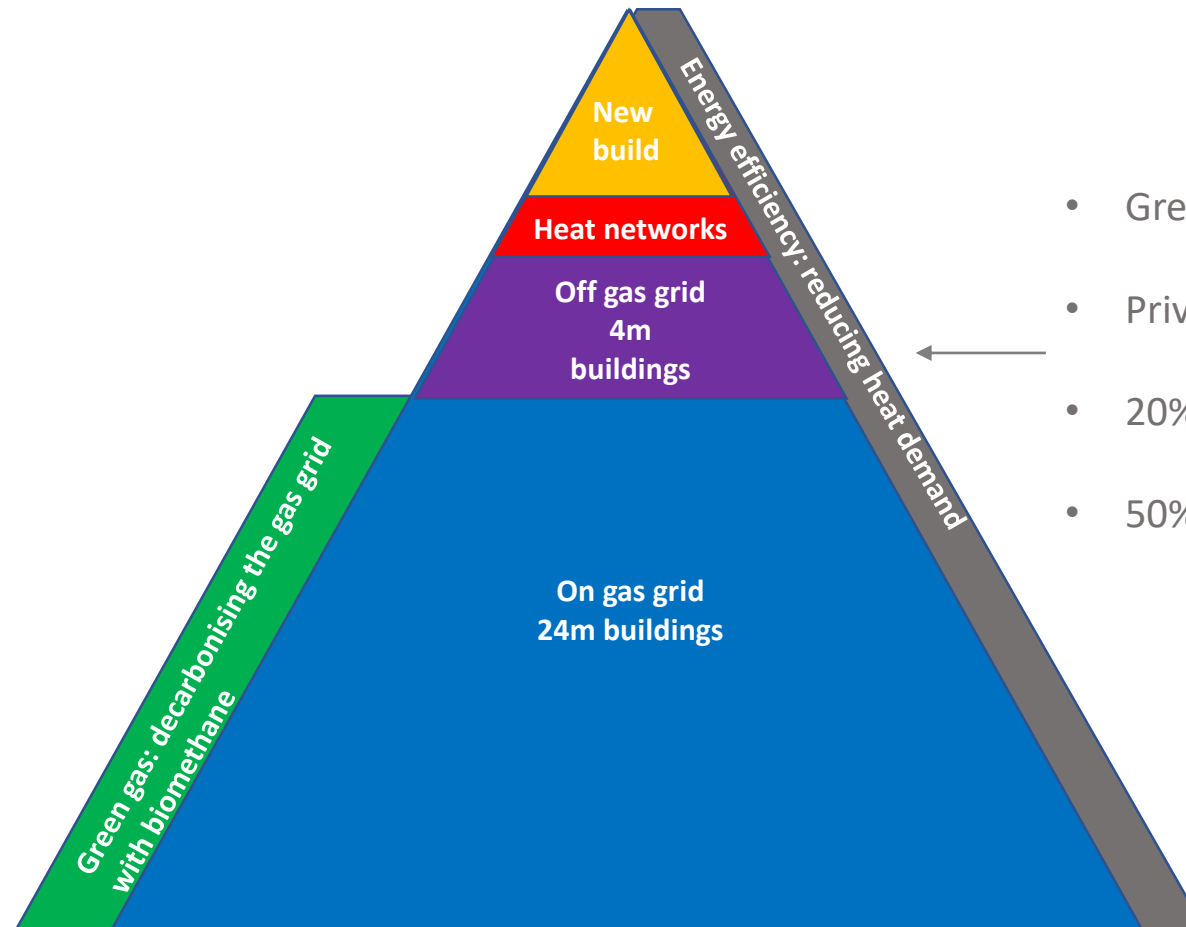


The key uncertainty – and the heart of the challenge – is how to decarbonise **existing buildings on the gas grid**

# How action is being targeted



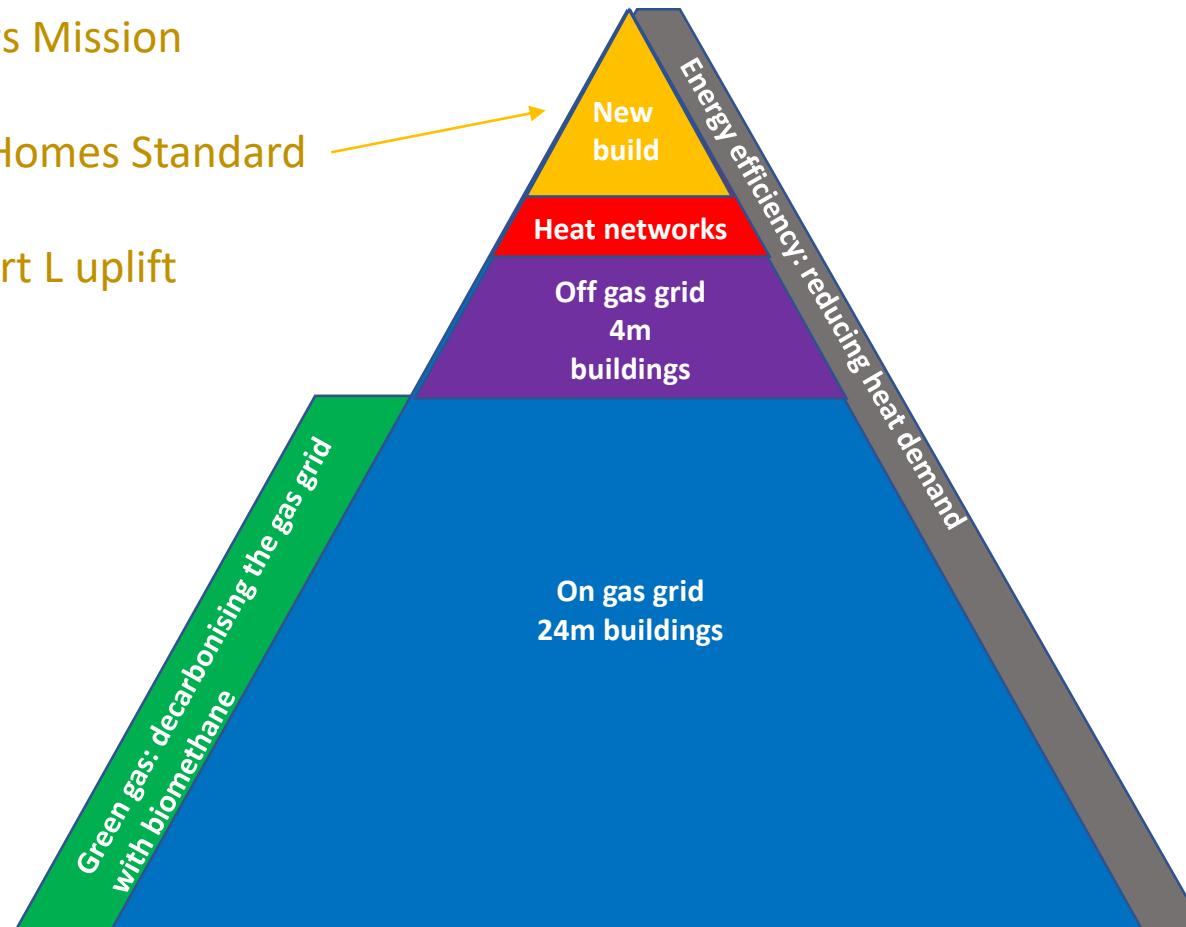
# How action is being targeted



- Green Finance Strategy
- Private Rented Sector (PRS) Regulations
- 20% ambition for non-domestic
- 50% public sector target

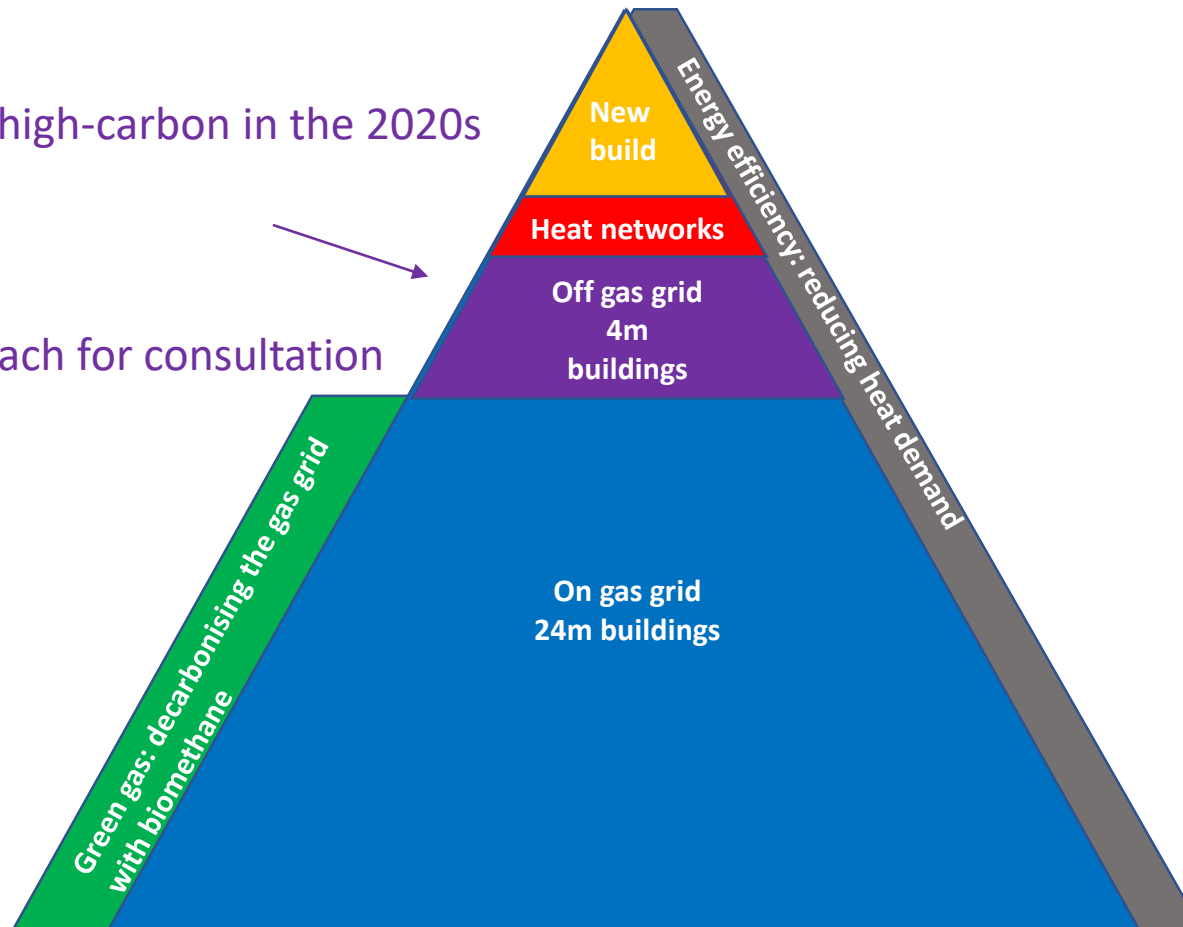
# How action is being targeted

- Buildings Mission
- Future Homes Standard
- 2020 Part L uplift



# How action is being targeted

- Commitment to phase out high-carbon in the 2020s
- 2018 Call for Evidence
- Preparing regulatory approach for consultation





# Installer survey

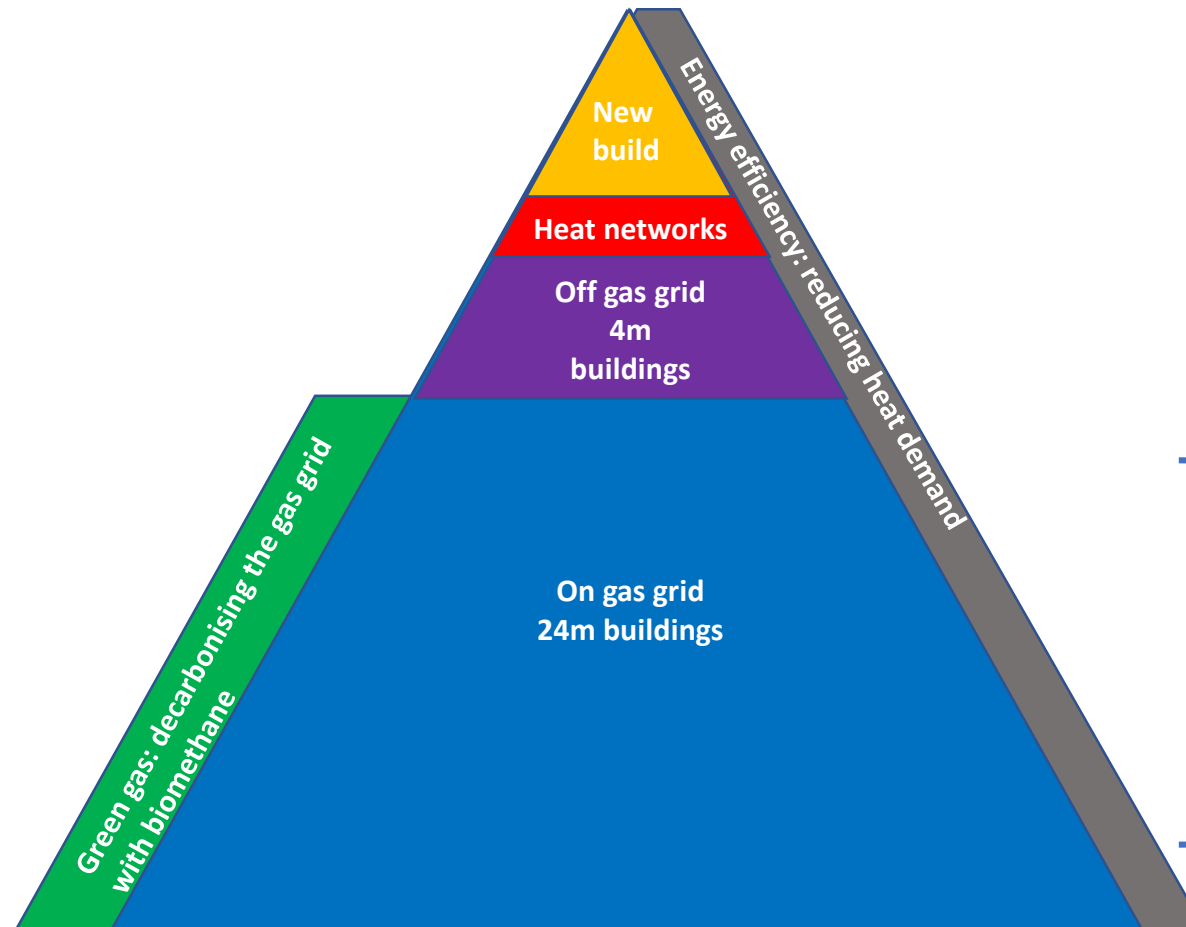
For installers and their customers:

- Views on impact of transition to low-carbon heating;
- Attitudes toward government incentive schemes;
- Support mechanisms required to drive transition;
- Response to ending high carbon heating in new builds from 2025.



<https://www.surveymonkey.co.uk/r/RS298DD>

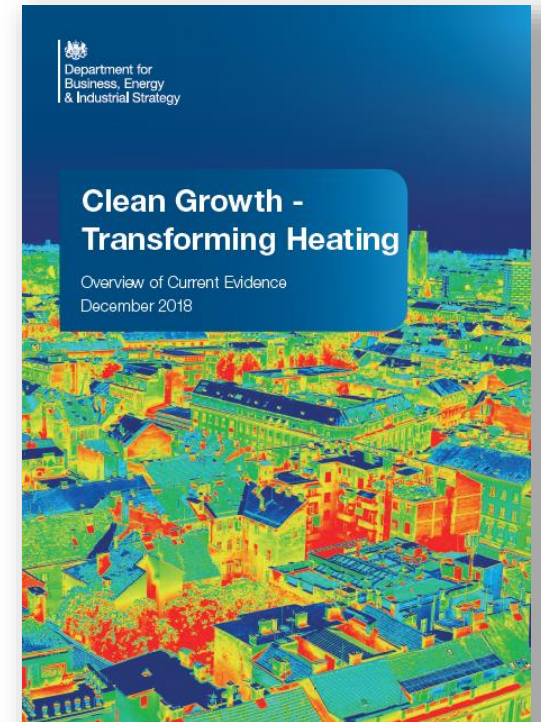
# How action is being targeted



The key uncertainty – and the heart of the challenge – is how to decarbonise **existing buildings on the gas grid**

# Furthering our understanding of heat technologies

- No clear consensus on the best approaches to decarbonising heat at scale
- We have come a long way in developing our understanding of the options in the past few years
- But evidence gaps remain and we have an agenda to plug them, including:
  - Hydrogen** - testing the costs, practical delivery challenges and public perception and experience of hydrogen technologies;
  - Bioenergy** - improving understanding of the potential for expanding feedstocks and the competition for limited bioenergy resources in the future
  - Electrification** - improving understanding of potential requirements for electricity generation and network reinforcement under different circumstances; electrification of heat demonstration project.



# Electrification of heat demonstration project

- Develop, test and evaluate innovative products and services that increase the appeal of heat pumps and identify optimal solutions for a wide range of homes.
- Demonstrate the practical and technical feasibility of heat pumps, including hybrids, across GB's diverse housing stock.
- Demonstrate that heat pumps can deliver high consumer satisfaction across a wide range of consumers.
- Improve awareness across the heating supply chain and raise consumer acceptance.

# Developing a policy framework for decarbonising heat

- As well as continuing to plug the gaps in the evidence, further work is needed to develop a long-term policy framework for heat to enable strategic decisions in the mid-2020s on the future of heat
- We have committed to develop a **roadmap for policy on heat decarbonisation**, which we aim to publish by mid-2020, to get us to the policy framework



- It is an open question as to what form the framework will take, but we will be looking to set this out in the roadmap and to work closely with you to do so: the scale of the challenge to decarbonise heat will need all of us to work together to tackle it

# Heat decarbonisation in the 2020s

To meet carbon budgets, action is needed to drive uptake of low carbon heating at scale, throughout the 2020s. Commitments include:

Phase out fossil fuel heating off the gas grid during the 2020s (territorial extent depends on policy levers)

Buildings Mission, to at least halve the energy use of new buildings by 2030 (England only)

Reduce emissions from the public sector by 50%, including by reducing the energy use of buildings, by 2032

Reduce business energy use by at least 20% by 2030

Improve the EPC of fuel poor and private rented households to Band C by 2030 (England only)

Commitment to bring the EPC rating for all homes to Band C by 2035 (England)

