



Advisory Board Meeting 5th October 2021

Heat is heat, isn't it? Attitudes to waste
heat streams for domestic use

LU Team: Vicky Haines, Andrew Pooley

**Low Temperature Heat Recovery and Distribution
Network Technologies**

Research purpose

- Residential heat demand poses a substantial challenge to the United Kingdom's 2050 emission targets with energy-inefficient housing stock and energy-efficient technology being seldom adopted (Burlinson et al., 2018)
- Waste heat provides an opportunity but attitudes could form a barrier to adoption

Waste heat streams

26 in-depth interviews with householders

Attitudes to various waste heat streams explored

Ratings of acceptability

Terminology (e.g. waste, recovered, secondary, recycled, low-grade)

Role of stakeholders in adoption



Sewers



Airports



Hospitals



Crematoria



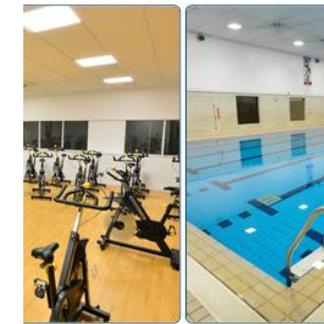
Supermarkets



Data centres



Railway tunnels

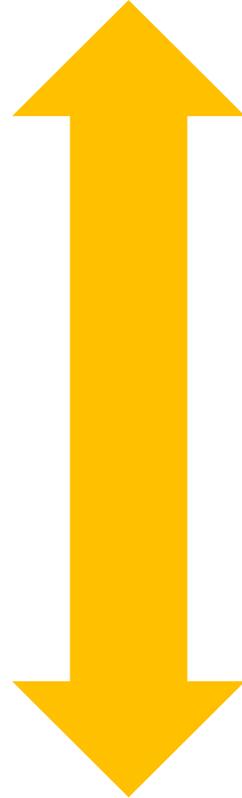


Leisure centres



Steelworks

Most accepted



Least accepted

1. Data centres
2. Leisure centres
3. Supermarkets
4. Steelworks
5. Airports
6. Railway tunnels
7. Hospitals
8. Sewers
9. Crematoria

Key topics identified from the discussions:

1. Economic
2. Energy
3. Environmental
4. Geographic
5. Health and Wellbeing
6. Identity and image
7. Safety
8. Knowledge

Summary of key points so far:

- Abundance of energy seen as a positive thing, even when there were concerns
- Associations with source of heat (positive and negative)
 - Familiarity
 - Personal meaning
 - Suitability or not for domestic use
- Paying twice
- Misunderstandings about heat transfer
 - 'Clean' heat and 'dirty' heat
 - 'Spirits in the radiators'