



Northern Powergrid

Decarbonising Heat Roundtable

Siobhan Barton
Head of Stakeholder Relations

Friday 10th May

Our Stakeholder-led Roundtables

- Today is an opportunity to hear from you, our stakeholders, as we discuss 'complex issues' we are thinking through
- We are hosting a series of 6 roundtables with a wide range of stakeholders from across our regions.
- We welcome your challenge, insight and guidance as today we discuss:
 - What strategy/plans do you have in place to begin the decarbonisation of heat?
 - How can we best support you in this transition?
 - What is missing to enable you to begin switching to low carbon heat?
 - What are the social implications of decarbonising heat – have these been considered and what should we do to address them?
- There are no right or wrong answers and we will actively encourage your contributions throughout the day.
- Your feedback and challenge helps shape the priorities of our annual business plan and our future planning.

Meet the Team

Jim Cardwell, Head of Policy Development

Anne-Claire Leydier, DSO Transition Manager

Anda Baumerte, Sustainability Manager

Greg Farrell, Head of System Strategy

Agenda

Agenda	Lead	Timings
Conference Welcome	Siobhan Barton	09.30 – 09.40
Northern Powergrid: Decarbonising Heat	Jim Cardwell	09.40 – 10.00
Roundtable Discussion 1: What strategy/plans do you have in place to begin the decarbonisation of heat? How can we best support you in this transition?	All	10.00 – 10.40
Break		
Roundtable Discussion 2: What is missing to enable you to begin switching to low carbon heat?	All	10.55 – 11.35
Roundtable Discussion 3: What are the social implications of decarbonising heat – have these been considered and what should we do to address them?	All	11.35 – 12.20
Summary and next steps	Jim Cardwell	12.20 – 12.30

House keeping



No planned fire alarms



Mobiles to silent please

- We will have a break at 10.40am
- Please stay for lunch after the roundtable which will be served at 12.30



Northern Powergrid

Decarbonising Heat

Jim Cardwell
Head of Policy Development

10 May 2019

UK is behind on its legally binding carbon targets

- Climate Change Act 2008 set a target of reducing greenhouse gas emissions by at least 80% of 1990 levels by 2050. Legally binding carbon budgets act as stepping stones for meeting the target.
- Decarbonisation of heat is required to meet the least-cost pathway for delivery of the legally binding carbon target.
- Currently, UK is **not** on track to meet the 4th and the 5th carbon budget.

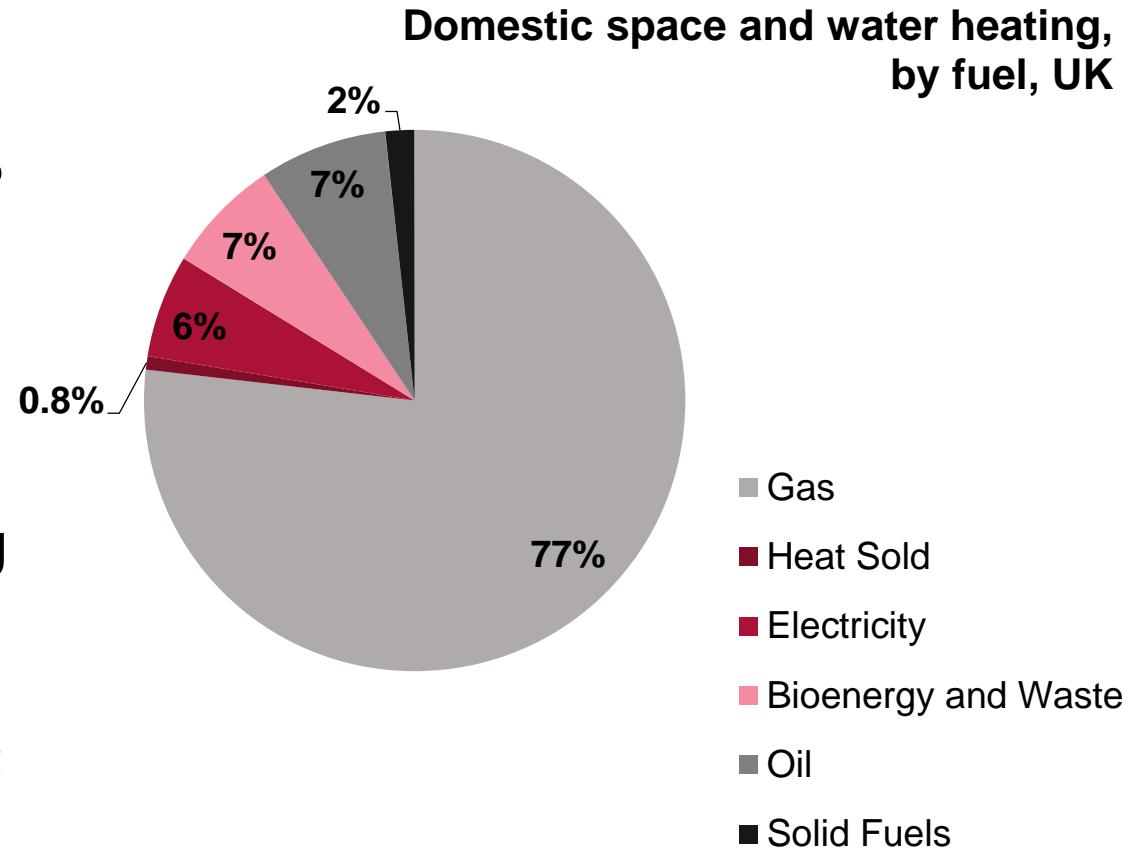
Budget	Carbon budget level	Reduction below 1990 levels
1st carbon budget (2008 to 2012)	3,018 MtCO ₂ e	25%
2nd carbon budget (2013 to 2017)	2,782 MtCO ₂ e	31%
3rd carbon budget (2018 to 2022)	2,544 MtCO ₂ e	37% by 2020
4th carbon budget (2023 to 2027)	1,950 MtCO ₂ e	51% by 2025
5th carbon budget (2028 to 2032)	1,725 MtCO ₂ e	57% by 2030

Today, heating in the UK is preliminarily delivered using fossil fuels

Heat accounts for over a third of UK's greenhouse gas emissions*.

- 74% of the heating in the industrial and 64% in the service sector is delivered by fossil fuels
- 86% of the domestic space & water heating is delivered with fossil fuels
- More than 40% of non-gas domestic heating comes from carbon-intensive fossil fuels – heating oil (kerosene) and coal

*BEIS *Clean Growth - Transforming Heating* overview of current evidence 2018



Source: Energy Consumption in the UK, 2018 (2017 data)

Near-zero emission heating is needed by 2050

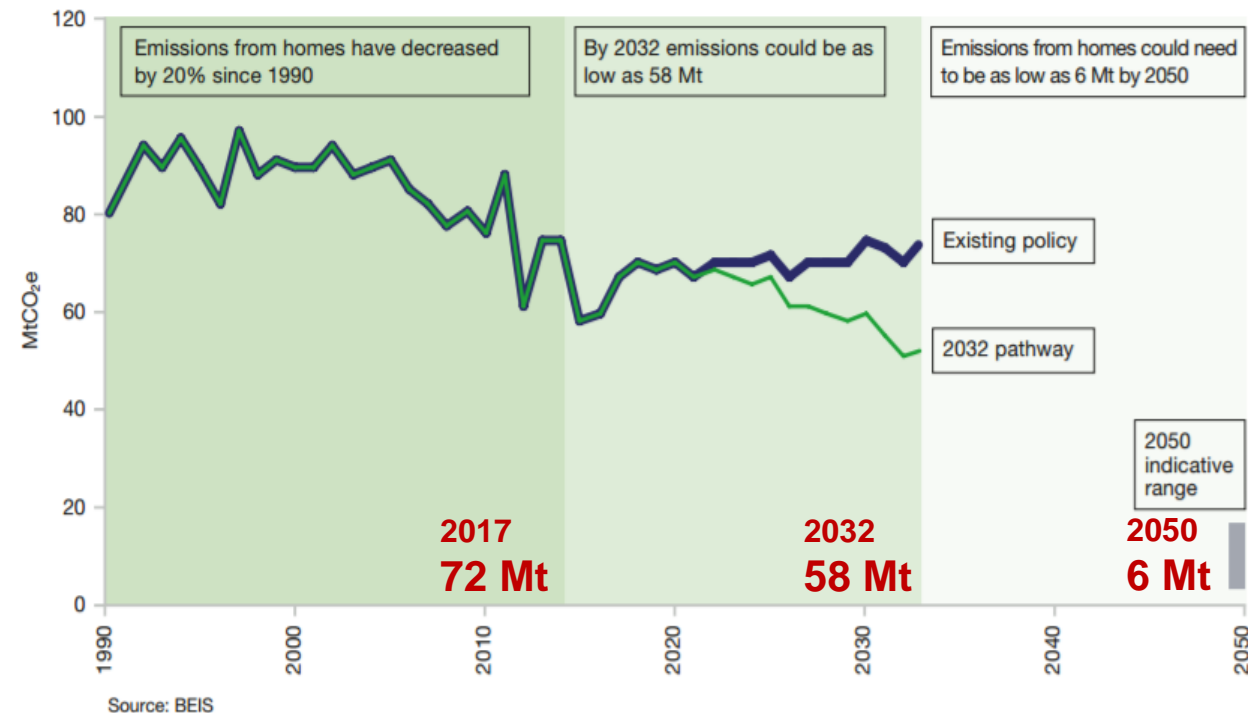
UK's Clean Growth Strategy (12 Oct 2017) sets out Government's targets to reach near-zero heating by 2050.

The suggested thresholds for emissions from homes are:

- 72 Mt CO₂e in 2017 (actual)
- 58 Mt CO₂e in 2032
- 6 Mt CO₂e in 2050

To deliver on targets, UK needs to achieve a near-zero emissions from heating across its housing stock by 2050.

Figure 20: Actual and projected emissions in homes, taking into account the clean growth pathway, 1990-2050



Potential pathways for decarbonising heat

BEIS overview of current evidence *Clean Growth - Transforming Heating* (Dec 2018) explored a number of approaches to decarbonising heat:

- Low carbon electricity
- Low carbon gas (H₂)
- Bioenergy (biomass burners, anaerobic digestion, biomethane, etc.)
- Heat networks

All approaches to decarbonise heating to meet the UK carbon targets **will require capital investment**. Electrification was deemed to present the greatest opportunity for properties off the gas grid.

Questions



Roundtables

Roundtable 1

What strategy/plans do you have in place to begin the decarbonisation of heat?

How can we best support you in this transition?

Break



Roundtables

Roundtable 2

What is missing to enable you to begin switching to low carbon heat?

Roundtable 3

What are the social implications of decarbonising heat – have these been considered and what should we do to address them?

Summary and next steps

Forthcoming Events

Climate Change: the impact on regions and organisations

- Join us as we discuss the nature of the issues and risks organisations face as part of their climate change adaptation strategy and how they are planning to respond to those issues and risks. Monday 13th May

How do we build a smart energy system centred around the needs of our customers?

- Join our roundtable as we bring together energy retailers and providers of energy services to initiate the sharing of the vision for the future of energy markets, their mechanisms, and their priorities. Wednesday 15th May, 09.30 – 13.00 at the Barbican Centre, London

Annual Stakeholder Summit

- Friday 29th November at Cloth Hall Court, Leeds

Thank you