The Renewable Heat Incentive: support for heat pumps

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Overview

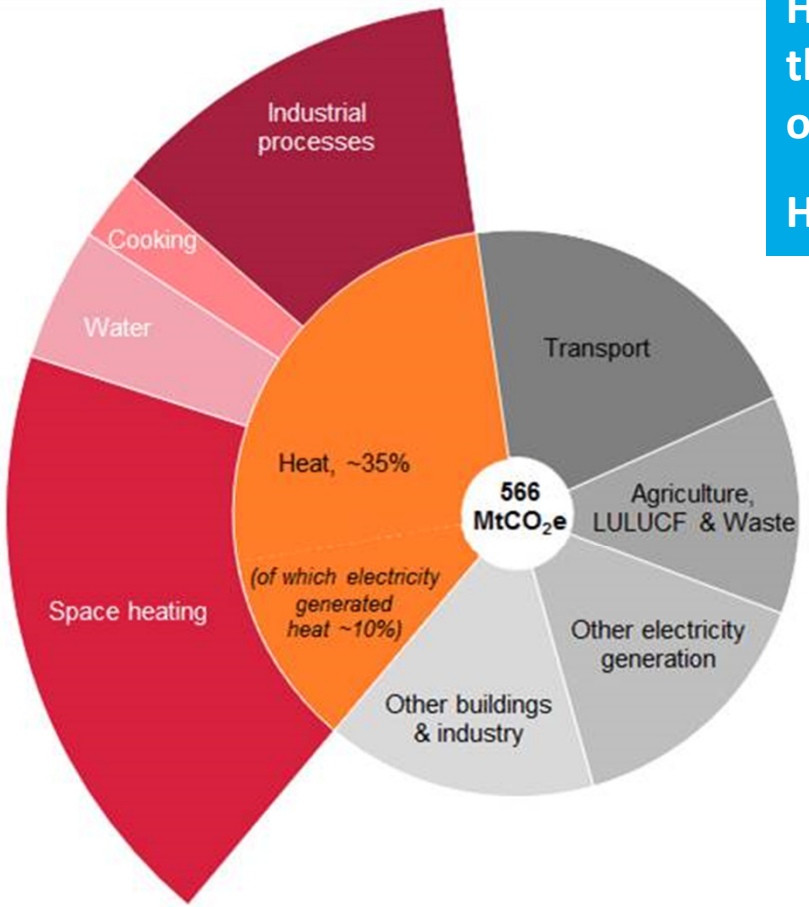
- Why do we need low carbon heat policy?
- What is the RHI?
- Current and reformed support in the RHI
- The future of heat pumps

Heat and energy use in the UK

Heat is the single biggest reason we use energy in our society

- Around **a third of the UK's carbon emissions** come from the energy used to produce heat.
- **44% of final energy consumed** in the UK is used to generate heat for domestic, commercial and industrial purposes.
- Over **70% of all the heat** used in the UK – in homes, businesses and industry – comes from gas, a fossil fuel.
- As a country, we spend **£32 billion a year** on heating.

Heat matters



Estimated UK emissions attributable to heating, 2013

Source: Unpublished estimate, Energy consumption in the UK, Government Emission Conversion Factors (BEIS)

Heating is the biggest user of energy in the UK, and accounts for around a third of GHG emissions.

Heat is responsible for 200MtCO2e.

"It will be necessary to largely eliminate [the emissions from heating and hot water for UK buildings] **by around 2050** to meet the targets in the Climate Change Act…"

Committee on Climate Change - *Next steps for UK heat policy - October 2016*

The Renewable Heat Incentive

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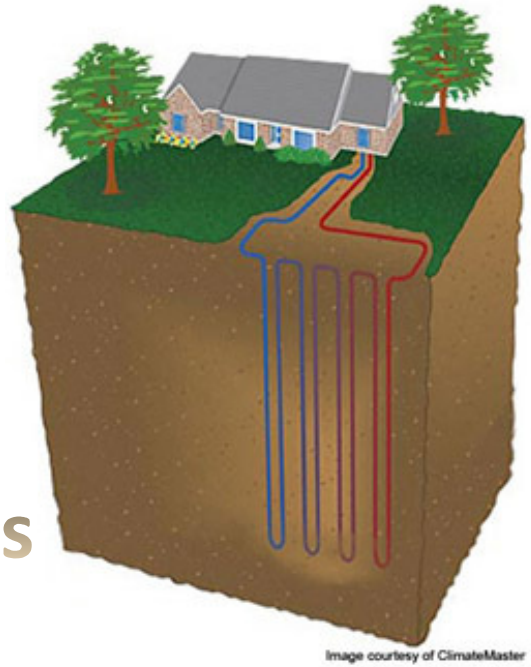
The Renewable Heat Incentive

- The Renewable Heat Incentive provides **financial incentives** to install renewable heating in Great Britain.
- It is available to **households and non-domestic consumers**
- The non-domestic RHI has been operational since 2011, with the domestic RHI added in 2014
- The RHI supports a range of low carbon heat technologies
- RHI contributes to the UK's **2020 renewables target** and our **carbon goals**

Supported technologies

Heat pumps



Biogas and biomethane

Biomass boilers

Solar thermal

Biomass CHP

+ geothermal

How the RHI scheme works

- Eligible equipment installed and commissioned
- Application made to Ofgem
- Applicable tariff determined by date of application
- Ofgem process application and once satisfied – application accepted
- Quarterly payments start – 20 years (NDRHI) or 7 years (DRHI)
- Ongoing - heat meter readings submitted (NDRHI and some DRHI)
- Ongoing – annual declarations

DRHI: Eligibility

- Single domestic premises only
- Supported technologies:-
  - biomass only boilers, and biomass pellet stoves
  - air source heat pumps
  - ground source heat pumps
  - flat plate and evacuated tube solar thermal panels.
- Model must be on eligible technology list
- Insulation required if recommended by EPC
- MCS compliance
- Metering required in some instances
- Must be new equipment with same commissioning date

NDRHI: Eligibility

- Open to industrial, commercial, public sector and non-profit organisations
- Supported technologies:-
  - solid biomass, including when contained in waste (including CHP)
  - ground and water source heat pumps
  - air to water heat pumps
  - biogas combustion (including CHP) – not from landfill gas
  - biomethane injection
  - solar thermal (at capacities of less than 200 kWth)
  - geothermal (including CHP)
- Must be eligible heat use
- MCS required - if 45kWth or less
- Metering

Heat Pump Tariffs: today

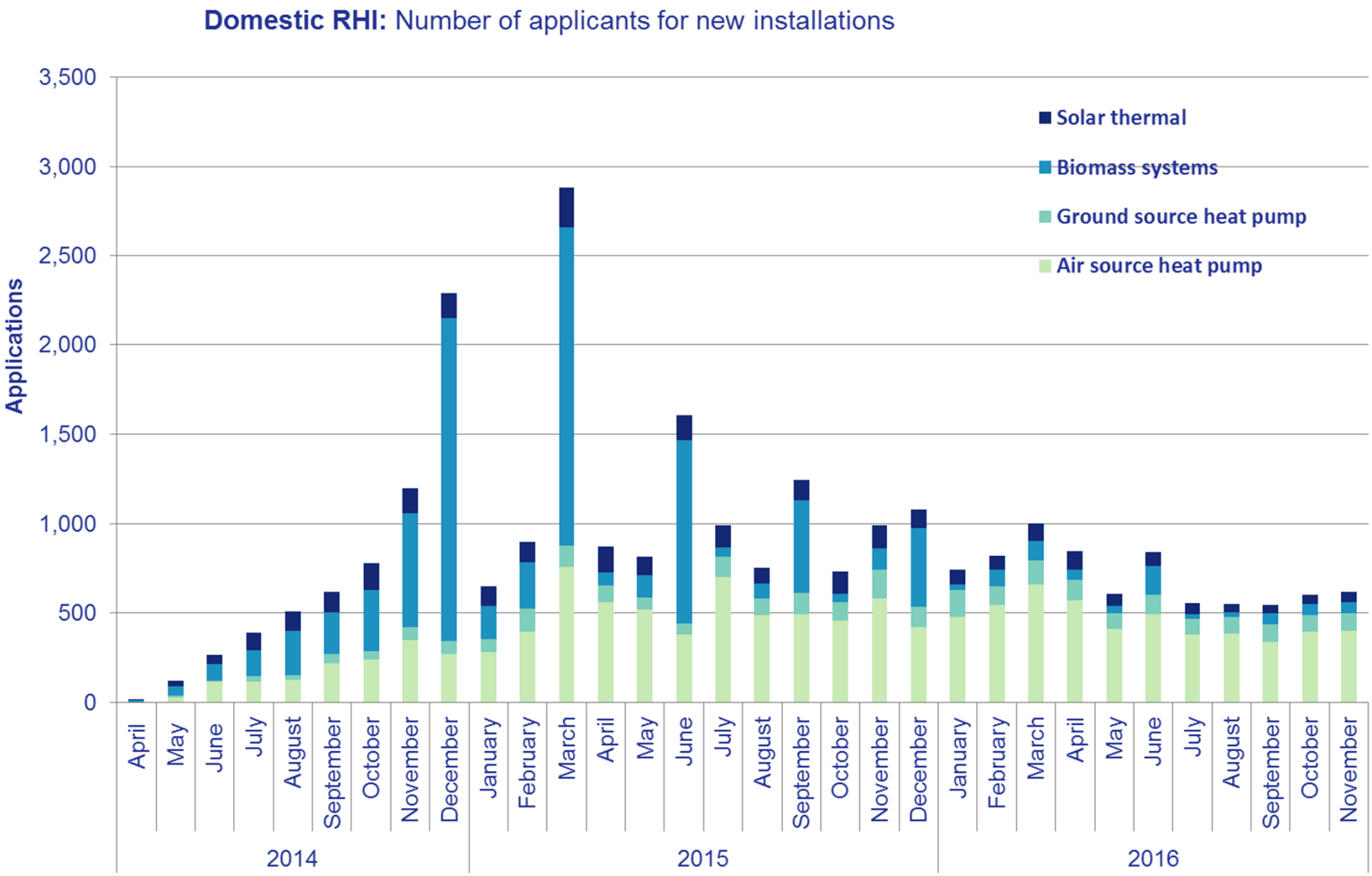
Domestic RHI

Air Source Heat Pumps	Ground/water Source Heat Pumps
7.51 pence/kWh	19.33 pence/kWh

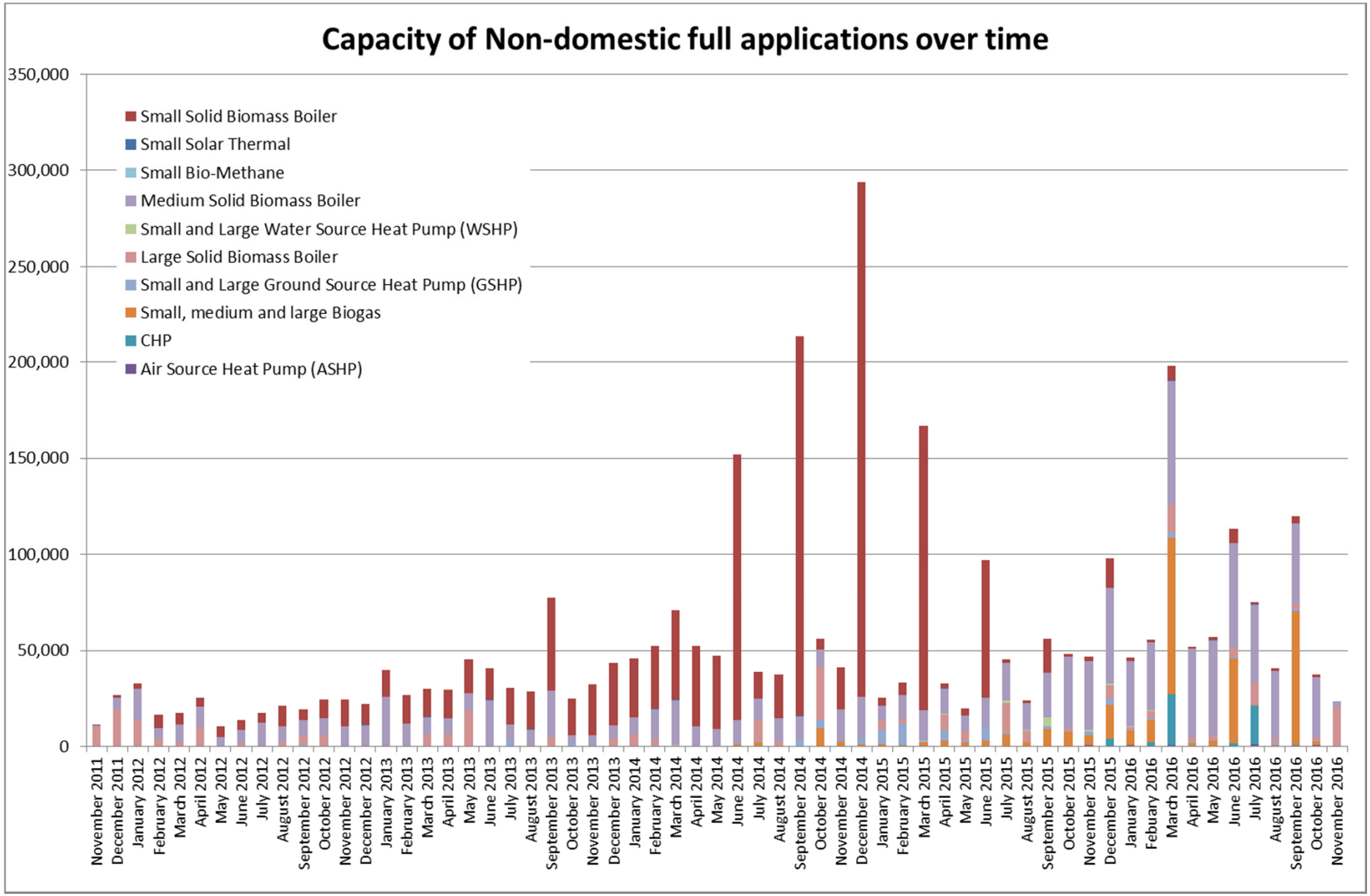
Non-Domestic RHI

Air Source Heat Pumps	Ground Source Heat Pumps
2.57 pence/kWh	Tier 1: 8.95 pence/kWh
	Tier 2: 2.67 pence/kWh

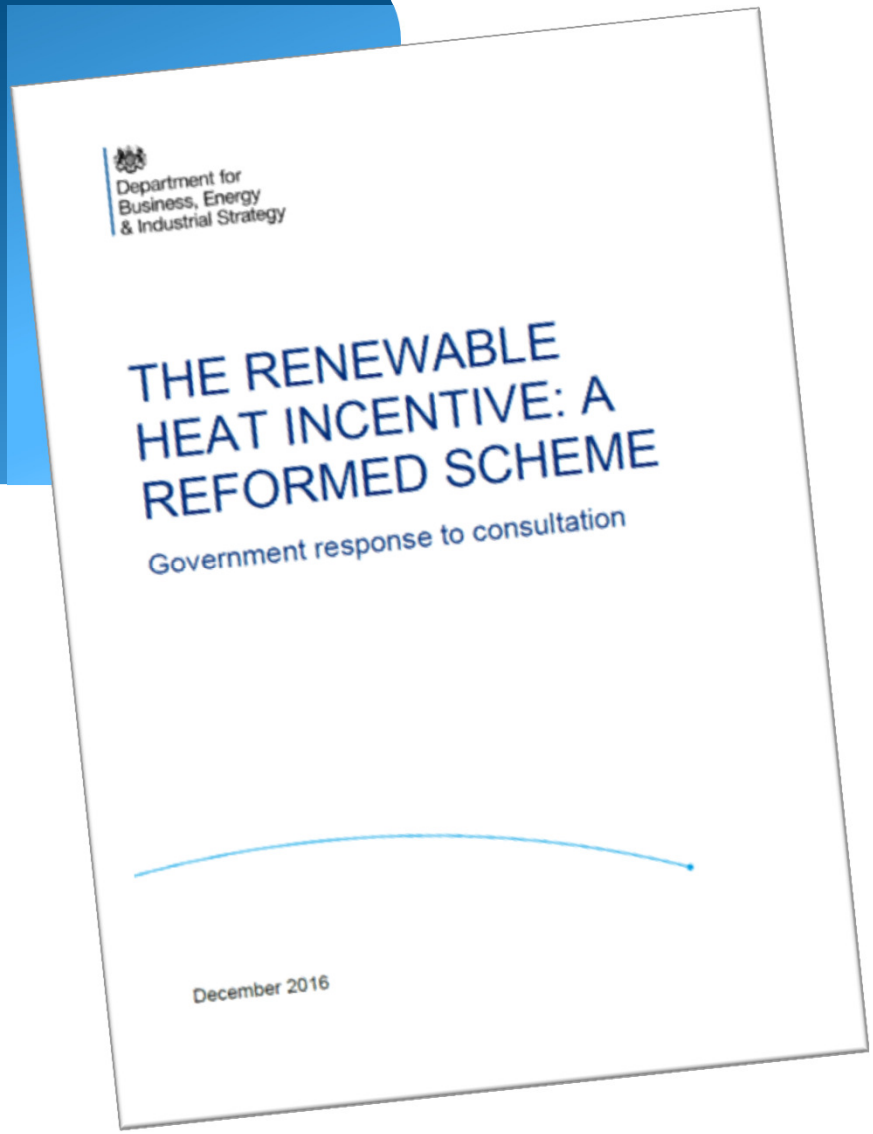
Domestic deployment



Non-domestic deployment



2017 Reforms



- Government response to the RHI consultation published December 2016
- **Entry into force – Spring 2017**

Overview of the Spring 2017 RHI reforms

Overall, the reforms will improve the scheme to ensure it:

- Focusses on long-term decarbonisation
- Offers better value for money and protects consumers
- Supports supply chain growth and challenges the market to deliver

Domestic RHI reforms

- The tariff for new Air Source Heat Pumps will be increased to 10.02p/kWh
- The tariff for new Ground Source Heat Pumps will be increased to 19.55p/kWh
- Applications now will receive new tariffs from spring 2017

Domestic RHI reforms

- Not introducing mandatory heat metering for heat pumps. New ASHPs and GSHPs required to install electricity metering
- Annual heat demand limits will be introduced. The heat demand limits will be set at:
  - 20,000kWh for Air Source Heat Pumps (ASHP)
  - 30,000kWh for Ground Source Heat Pumps (GSHP)

Assignment of Rights

- allow householders on the Domestic RHI to assign their right to RHI payments to a company that has financed some or all of their renewable heating technology.
- available to all eligible technologies.
- No separate tariffs, degression triggers or budget cap.
- Householder will complete the application form and continue to be responsible for the majority of ongoing obligations.
- To be introduced later – date tbc

Non-domestic RHI - Reforms

- Tariff Guarantees to protect applicants from degression and scheme closure
- Eligibility for TGs:
  - large biomass boilers (above 1MW)
  - large biogas plant (above 600kWth)
  - Ground Source Heat Pumps above 100kW
  - all capacities of biomethane, biomass-CHP and deep geothermal plant
- Heat covered limited to 250GWh per annum.

Non-domestic RHI - Reforms

- GSHPs with a shared ground loop will continue to be eligible for support through the non-domestic RHI. Payments will be made on the basis of deemed heat use, as in the domestic scheme
- Tariffs for ASHP and GSHP not changed

The future of heat pumps

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The Emissions Reduction Plan

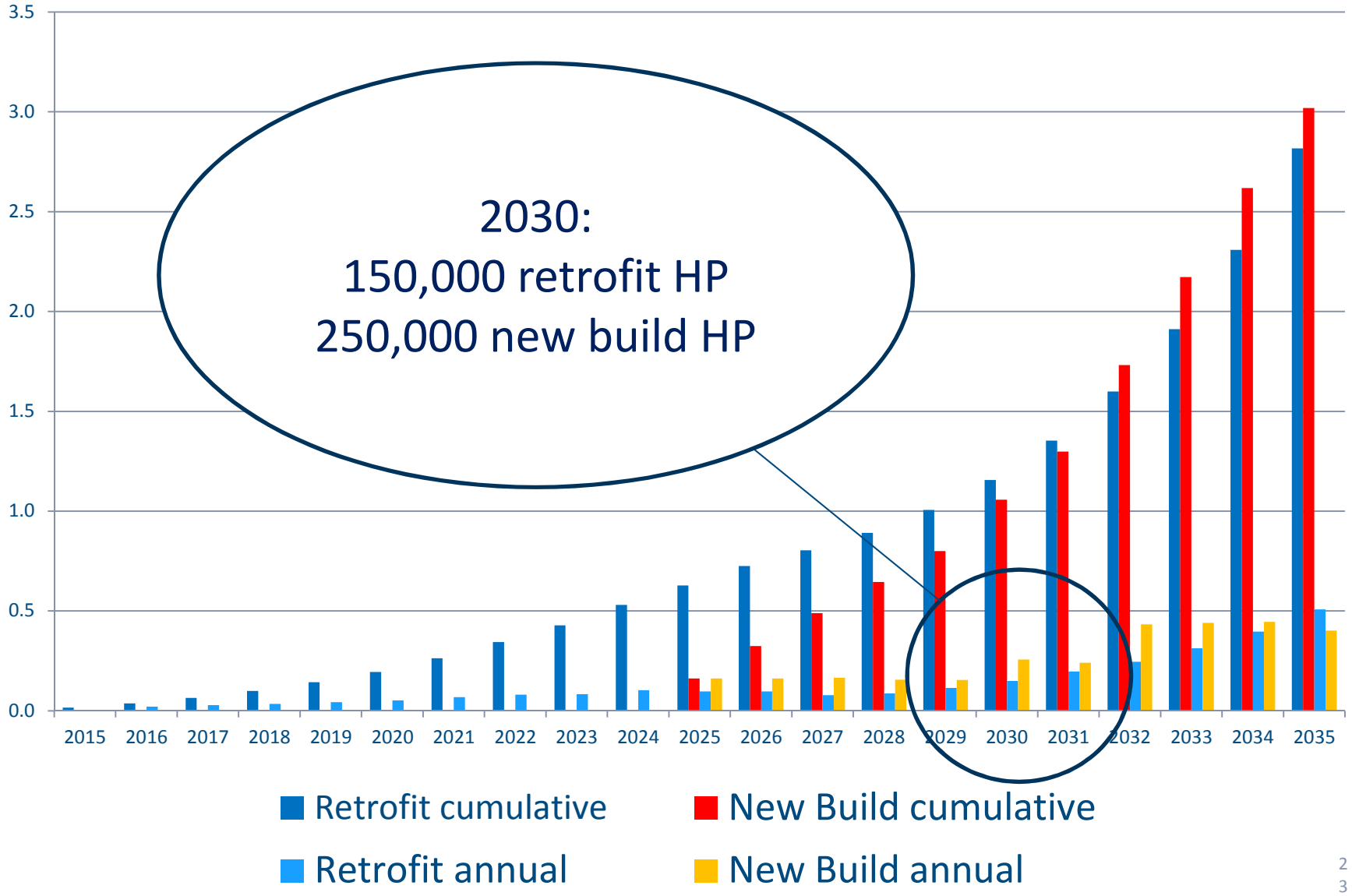
The Emissions Reduction Plan needs to set out how the UK will :

- reduce emissions over the 2020s;
- meet its carbon budgets to 2032 (57% reduction);
- stay on track for its 2050 target to reduce emissions by at least 80% on 1990 levels.

The Emissions Reduction Plan will be published in **Spring 2017.**

The Committee on Climate Change has already published its advice.

CCC advice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150,000 retrofit HP
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Retrofit cumulative
New Build cumulative
Retrofit annual
New Build annual

The future of heat pumps

Deployment of heat pumps at scale assumes:

- Supply chain capacity
- Efficient performance
- Cost reductions
- Finance packages
- Policy signal

We look forward to working with you on this!

Thank You

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