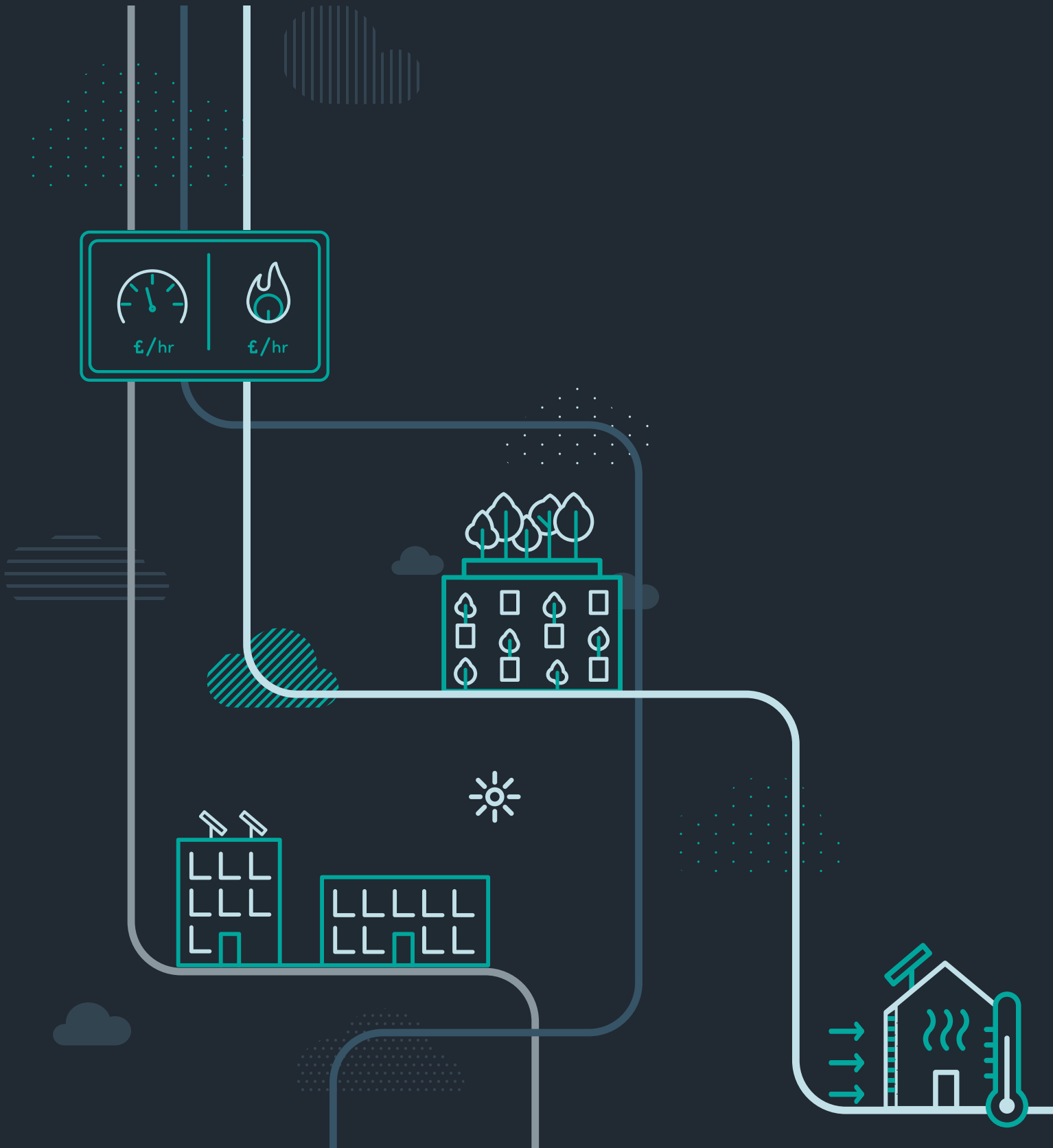




Llywodraeth Cymru
Welsh Government

Buildings: Sector Emission Pathway



Buildings: Sector Emission Pathway

This sector covers the residential (all of Wales' housing including owner occupied, private and socially rented homes) and the non-domestic buildings in the public and commercial sector. The majority of the emissions in this sector are related to how much energy we use to heat our buildings.

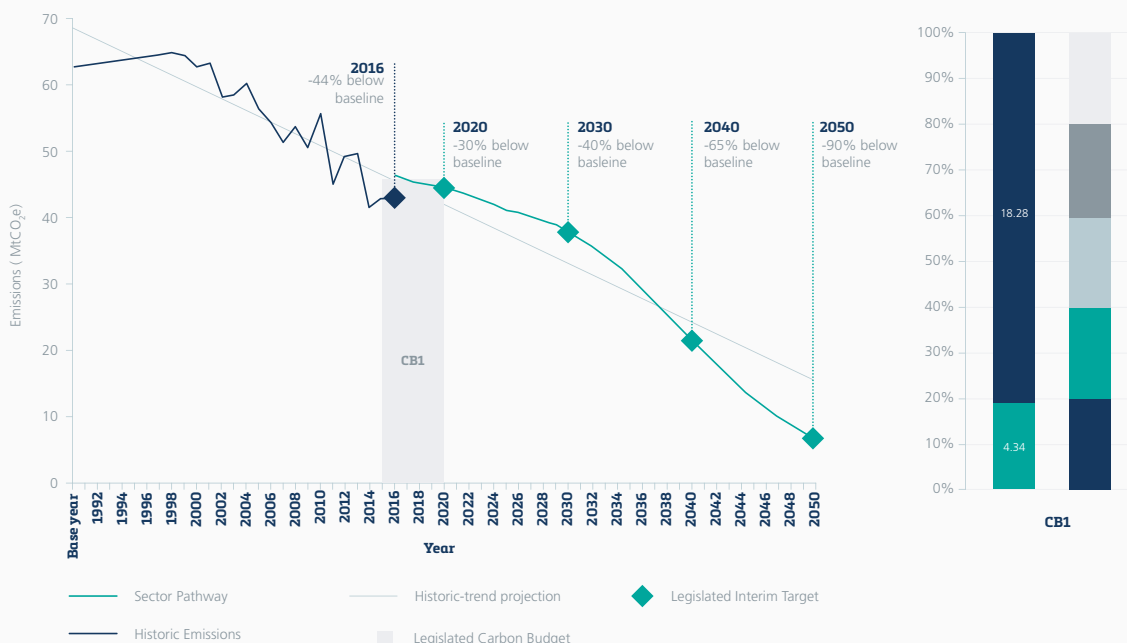
Ambition

If Wales is to meet its climate targets, buildings will need to operate at close to zero emissions by 2050. This will require a substantial change in how we heat and power buildings in the future. The amount of energy used in our buildings will have to be significantly lower. The electricity we use to light and increasingly heat our buildings will be from low carbon and renewable sources.

In 2016 the sector emitted 4.3 MtCO₂e using up 19% of the Buildings Sector's contribution to CB1.

Source	% of total Welsh emissions
Residential buildings	7.5%
Business sector buildings	0.9%
Public sector buildings	0.7%

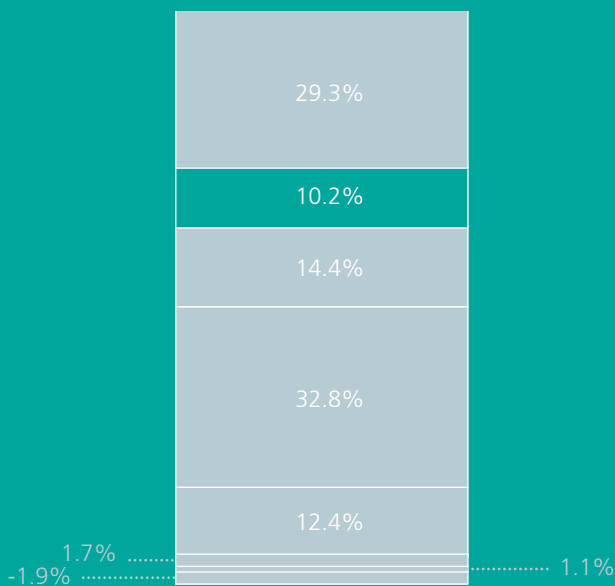
Historic emissions for the Buildings Sector and UKCCC modelling to show emission reductions for the first carbon budget (CB1) and a possible route for a contribution to an 80% reduction in all Welsh emissions in 2050



2020 Emissions Target

Emissions in 2020 will be 1.9% lower than in 2016. This will mean that Buildings sector emissions are 30% lower than the baseline in the year 2020.

Buildings sector allocation for Carbon Budget 1



The total budget for the Buildings sector for CB1 is estimated to be 22.6 MtCO₂e. The Buildings Sector contributes 10.2% of the total Welsh budget for CB1.

Building sector pathway to 2030

Buildings sector emissions will reduce by 40% from baseline levels by the year 2030 as a result of:

- › energy efficiency measures;
- › low carbon heating measures; and
- › behavioural change measures to the way we run buildings.

Policies & Proposals for Carbon Budget 1 (2016-2020) & towards 2030

Energy efficiency measures will be crucial to meeting our carbon budgets and targets. Wales has 1.4 million homes across a wide range of housing types, including a significant proportion of older buildings. Wales has a slightly higher proportion of solid-wall homes than the UK, which means more of our housing stock is more expensive to insulate. The decarbonisation of heat is also crucial in reducing emissions from the sector. Around 1 in 5 of our homes is not connected to the gas grid, a higher proportion than the UK as a whole. This means more Welsh homes will require individual low-carbon heating solutions. We are also looking how behavioural change can help to reduce emissions in this sector.

Policies & Proposals

We will Increase the Energy Efficiency of buildings through

- › Funding and delivery of our Warm Homes Programme
- › Raising standards through our Welsh Housing Quality Standard
- › Improving our evidence-base around residential retrofit programme
- › Setting higher energy efficiency standards for new builds through reviewing Building Regulations Part L (Conservation of Fuel and Power)
- › Driving innovation through our Innovative Housing Programme
- › Developing Innovative construction techniques to reduce and meet the energy demand within buildings and increasing the use of sustainable materials
- › Funding more efficient buildings through our Sustainable buildings funding policy
- › Funding the Welsh Government Energy Service to drive energy efficiency projects across the Public Sector
- › Reducing emissions from listed buildings and scheduled monuments
- › Providing advice and support through Business Wales



We will Increase the use of low carbon heat through

- › Scoping out the challenges and opportunities around low-carbon heat
- › Increasing the use of waste heat and low carbon heat

We will look at the options around behaviour change through

- › Piloting Smart Flexible and Digitalised System to reduce demand
- › Incentivising energy efficiency of homes through our Help to Buy – Wales

Well-being

Policies that improve the energy efficiency of residential buildings will provide benefits in terms of improved comfort and health outcomes resulting from cold, damp housing.

In addition, the switch away from polluting fuels for heating can also improve air quality.

In terms of new build, our Well-being Matrix Tool, identified how the IHP already provides benefits in relation to the well-being goals and in particular strong direct benefits for a more equal, prosperous and, globally responsible Wales.