

Pwyllgor Newid Hinsawdd, yr Amgylchedd a Seilwaith /
Climate Change, Environment and Infrastructure Committee
Blaenoriaethau ar gyfer y Chweched Senedd / Priorities for the Sixth Senedd

PR15

Ymateb gan British Heart Foundation Cymru / Evidence from British Heart
Foundation Cymru

Priorities for the Climate Change, Environment, and Infrastructure Committee Consultation

British Heart Foundation Cymru Response

The British Heart Foundation is a UK wide charity with a vision to beat heartbreak forever. We work to achieve this goal through research. We fund around £4 million of research each year in Wales into all heart and circulatory diseases and their causes – including air pollution.

British Heart Foundation Cymru welcomes the opportunity to respond to the Climate Change, Environment, and Infrastructure Committee's consultation on its priorities for the Sixth Senedd. We believe that reducing the most health harming pollutants through tackling domestic burning and a move away from private vehicles should be priorities for the Senedd and Welsh Government over the next 18 months. Welsh Government's white paper on a Clean Air Bill makes commitments to reduce PM_{2.5}. This legislation must be introduced at pace.

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Domestic burning

PM_{2.5}, or particulate matter 2.5, refers to tiny particles in the air that are 2.5 microns or less in diameter. One of the most damaging pollutants for our health, PM_{2.5} derives from a range of sources, but most notably from domestic burning of traditional coal and wet wood.ⁱ PM_{2.5} can be inhaled and can cross into the bloodstream, not only causing damage to the respiratory system but our heart and circulatory system too. Researchers found that these fine particles can cause blood vessel walls to narrow and harden over time, which can increase blood pressure and the strain on your heart. PM_{2.5} can also cause blood clotting. Ultimately, this can worsen existing heart and circulatory diseases, lead to the development of new cardiovascular conditions, and increase the risk of acute cardiac events like heart attack or stroke.ⁱⁱ The World Health Organization has stated there is no threshold below which PM_{2.5} does not damage health, therefore all sources of PM_{2.5} must be tackled to provide healthier air to the people of Wales.ⁱⁱⁱ

Studies suggest that particulate matter from wood burning makes an important contribution to (wintertime) PM₁₀ and PM_{2.5} in densely populated residential areas^{iv} and that the level of emissions vary significantly by type of stove and type of fuel. The most responsible way forward is to tackle all sources. We believe that wet wood should not be sold anywhere in Wales **and so, it is encouraging that Welsh Government is considering prohibiting the sale of wet wood in its Clean Air (Wales) Bill.^v Welsh Government should prioritise its plans to introduce a Clean Air Act for Wales within the next 18 months.** The ban on sales of wet wood is likely to have the biggest impact on domestic combustion and working with the UK Government on regulation of the most inefficient stoves must also be a

priority. This must be supplemented by information to suppliers and households about the dangers of burning wet wood as well as advice on how to properly dry wood so that it is safer to burn.

For some households, the burning of solid fuel may be their primary source of heating. For this reason, measures to reduce domestic burning must be accompanied by schemes to support those who live in fuel poverty and who are burning wood because they cannot afford to move to greener forms of energy.

Any restrictions to domestic burning must also necessarily extend to outdoor burning. Not to do so would undermine the ambitions of the regulations. On 5 November 2020, bonfires and fireworks across the country led to a [dramatic spike in air pollutants across the country](#), with some areas recording a fourfold increase in the amount of pollution in the air. Any restrictions on the sale of wet wood and bituminous coal must be blanket restrictions. Allowing for the most polluting fuels for outdoor use only would undermine the restrictions and allow for a significant loophole in the sale of fuels causing the most health harming pollutants.

A move away from private vehicles

Road transport is responsible for 80% of NO_x pollution where legal limits are being broken.^{vi} Combustion in petrol and diesel engines produces PM_{2.5}. Around 1,600 deaths in Wales are attributable to particulate matter pollution each year,^{vii} this includes particulate matter from traffic. The World Health Organisation reports that when particulate matter (PM₁₀ and PM_{2.5}) levels are reduced, related mortality will go down. But it's not just burning fuel that causes the problem. A significant amount of particulate matter is caused by tyre and brake wear. This means that even if we switched all vehicles in Wales to electric or hydrogen, we would still have a damaging amount of PM_{2.5} as a result of all the traffic.

There needs to be huge investment into public transport to support a move away from private vehicles and reduce traffic. Alongside this, the introduction of charging Clean Air Zones in all local authorities identified as in breach of targets would be a significant step in providing a population level change to road use in Wales' urban centre.

Recommendation: BHF Cymru believes that reducing PM_{2.5} should be a priority for the Senedd and Welsh Government over the coming 18 months with a Clean Air Act introduced to the Senedd in the next legislative programme.

ⁱ UK Government Department for Environment, Food and Rural Affairs. (2021). *Emissions from domestic burning in the UK* [Online]. <https://bit.ly/38Bpnll>

ⁱⁱ BHF. *The effects of air pollution on our health* [Online]. <https://bit.ly/2Vcykyy>

ⁱⁱⁱ World Health Organisation. (2018). *Ambient (outdoor) air pollution*. <https://bit.ly/38Bpe1o>

^{iv} Fuller, G. W. et al. (2014). Contribution of wood burning to PM₁₀ in London. *Atmospheric Environment*. <https://bit.ly/3jGvjA0>

^v Welsh Government. (2021). *White Paper on a Clean Air (Wales) Bill*. <https://bit.ly/3zEkT9A>

^{vi} UK Government. (2017). *UK plan for tackling roadside nitrogen dioxide concentrations*. <https://bit.ly/2Vc0CZZ>

^{vii} Welsh Government, *Air Quality in Wales: Health effects of air pollution* [Online]. <https://bit.ly/3zNP9yU>