



September 2021

Dear Constituent,

Thank you for contacting me about possible green alternatives to gas boilers.

There are currently around 1.7 million fossil fuel boiler installations every year, but by the mid-2030s I am pleased that the Government expects all newly installed heating systems to be low-carbon or to be appliances that can be converted to a clean fuel supply.

A significant proportion of household heating is achieved from burning natural gas, which unfortunately accounts for a large proportion of household carbon emissions. I understand many people would like in due course to switch to a greener heating system but would like more information about the costs and practicalities of this.

There are several alternatives to gas boilers already in existence, including heat pumps. A heat pump is a very efficient electrically-driven device that extracts heat from the air, ground or water and concentrates it to a higher temperature and delivers it elsewhere, for example to a central heating system, therefore it has the potential to replace fossil fuel heating, such as a gas or oil boilers. In the Ten Point Plan, the Government announced that it will increase the installation of electric heat pumps from 30,000 per year to 600,000 per year by 2028, supporting up to 20,000 jobs by 2030.

Another possible green alternative is a hydrogen boiler. The Government is working with industry to examine the potential role of hydrogen in heating homes and workplaces. It would work in a similar way to gas boilers today but without any carbon emissions. The UK is already a world leader in hydrogen and the Government is investing £500 million in new hydrogen technologies. Prior to consulting on the role of 'hydrogen ready' appliances, the Government will assess the case for encouraging, or requiring, new gas boilers to be readily convertible to hydrogen, so-called 'hydrogen-ready' boilers, in preparation for any future conversion of the gas network.

Work is already underway to support the development of prototype 'hydrogen-ready' boilers, cookers and fires, through the Hy4Heat programme, which is due to conclude in summer 2021.

I am pleased that the Government has announced that the UK's first homes with appliances fuelled entirely by hydrogen will be built in Gateshead, with funding from the Hy4Heat programme, Northern Gas Networks and Cadent. The houses, which will be ready with appliances shortly, will be fitted with hydrogen powered boilers, hobs, cookers and fires that release no carbon emissions, thereby providing the public a glimpse into the potential home of the future.

In addition, the recently published Hydrogen Strategy confirmed that, dependent on the success of the heating trials and the information gathered, the Government aims to make a strategic decision on the future of hydrogen for heat in 2026.



Chris Heaton-Harris

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More broadly, while the UK continues to work towards net zero carbon emissions by 2050, thereby eliminating the UK's contribution to climate change, I am encouraged that renewables will continue to play a far greater role in the UK's energy mix.

Thank you again for taking the time to contact me.

Yours faithfully,

A handwritten signature in blue ink, appearing to read 'Chris'.

**CHRIS HEATON-HARRIS MP
MEMBER OF PARLIAMENT FOR DAVENTRY**