

Improving Boiler Standards and Efficiency

Proposals to mandate that from 2026 all newly-installed gas boilers are “hydrogen-ready”

The UK Green Building Council is an industry network with a mission to radically improve the sustainability of the built environment by transforming the way it is planned, designed, constructed, maintained and operated. As a charity with over 700 member organisations we span the entire sector from some of the largest property owners, managers and developers, manufacturers, multidisciplinary advisory and engineering firms, energy providers and distributors and banks through to public sector bodies including the NHS, MOD and many local authorities as well as many SMEs.

Summary

The consultation proposes to mandate that from 2026 onwards all new domestic-scale gas boilers sold are to be ‘hydrogen-ready’. That is, they can potentially be converted to run on pure hydrogen in case the gas network is ever converted. The government aims to take strategic decisions in 2026 on the role of hydrogen for heating buildings. The government’s view is that there is a strong case for the introduction of hydrogen-ready boilers as standard from this date.

UKGBC disagrees. In 2021 we published a [Whole Life Carbon Roadmap to Decarbonise the Built Environment](#). The Roadmap was the product of a year’s worth of collaboration between over 100 UKGBC member and industry organisations. The Roadmap report concluded that there is increasing consensus that although there is a clear role for hydrogen to decarbonise high temperature industrial processes and some transport, there is limited rationale for the use of hydrogen to heat buildings. The House of Commons Science and Technology Select Committee has also concluded that low carbon hydrogen will have at most a limited role in replacing natural gas in heating homes. It is many times more expensive and inefficient than heat pumps and heat networks.

The UKGBC Roadmap found that the only possible case for heating homes with hydrogen would be in the close vicinity of some industrial clusters, and not until 2040 (aligned with CCC 6th Carbon Budget ‘Balanced Pathway’). Instead, it supported the phase-out of all gas boilers driven by a clearly signalled end to all sales of all gas boilers by 2030.

UKGBC is also calling for the 2025 Future Homes and Buildings Standard to not permit any type of gas boiler to be installed or gas connection to be made.

Any use of hydrogen would require a transparent and robust science-based approach to the options available for production. Green hydrogen would require a huge increase in dedicated off-shore wind electricity. Blue hydrogen using fossil fuels would rely on carbon capture use and storage which is an immature and expensive technology, and so cannot be considered reliably low carbon and in line with the UK’s climate commitments.

This policy would represent, at the very best, a hugely inefficient, slow and costly path to decarbonisation. The latest IPCC report couldn’t be clearer that the window of opportunity to keep global temperatures below 1.5C is rapidly closing. We can’t afford delays and inflated costs.

We encourage the Government to not mandate hydrogen-ready boilers. And certainly not before 2026 when it has made a strategic decision about the role of hydrogen in heating.

Question 26: What opportunities and challenges would requiring all newly installed domestic-scale natural gas boilers to be hydrogen-ready from 2026 present? Please provide evidence and reasoning to support your answer.

UKGBC considers the risks of this approach to be considerable and the opportunities negligible.

Risks include:

Consultation response

- Undermining the heat pump and heat network industry.

The task of scaling up the manufacturing and installation of heat pumps and heat networks is already challenging with well understood issues around attracting capital investment and skilling up the workforce needed. This policy risks creating an unrealistic impression of the scale of hydrogen in heating and would serve to create unnecessary additional uncertainty for industry on the scale of market for heat pumps and heat networks.

- Driving up costs and undermining public confidence and appetite for the decarbonisation journey.

The consultation states *'Based on a price promise made by industry, the government expects the upfront costs of hydrogen-ready boilers to reach price parity with those of existing natural gas boilers once they match the current levels of production'*. This indicates that prices for a 'hydrogen-ready' gas boiler will be higher than current boilers for the next period. This means driving up the costs to households who invest in a 'hydrogen-ready' boiler on the basis that this could help tackle the climate emergency, even though there is no guarantee, and little likelihood, that the approach would be useful at scale or relevant for their location.

The cost of hydrogen itself will be much higher than running a heat pump or district heating further push up costs.

An addition, climate-conscious households across the majority of the country not close to industrial clusters who had installed an expensive hydrogen-ready gas boiler, would then be faced with a decision about paying to replace this with a heat pump.

The government's proposed 'hydrogen levy' on consumer bills would drive up energy costs for all households at a time of inflation and a cost of living crisis.

This 'green premium' for no likely benefit is exactly the kind of problem that can generate newspaper headlines and undermine confidence in other government initiatives.

- Slowing down the phase out of gas boilers and emissions reductions.

The consultation speaks of *'price parity with those of existing natural gas boilers once they match the current levels of production'*. This is no time to ramping up ('hydrogen-ready') gas boiler production when the UKGBC Roadmap shows that we need the fastest possible transition to heat pumps and heat networks (which is already going slowly) and that new gas boiler installations should completely end by 2030 at the latest.

The proposal risks well-meaning households choosing to install a hydrogen-ready gas boilers as a green measure when they could otherwise have purchased technologies like heat pumps which could immediately reduce gas use and emissions.

Question 52. Do you have views on whether, and to what extent, the policy proposals here might disproportionately impact upon certain types of consumer, with a particular focus on those in groups with protected characteristics? Please provide evidence and reasoning to support your answer.

Driving up the cost of energy through the proposed hydrogen levy, a policy to complement this strategy would disproportionately affect those in economically disadvantaged groups including disabled, black and minority ethnic and older people and women.

For further information, please contact Louise Hutchins, Head of Policy and Public Affairs