

# Royal Institute of British Architects

Department for Business, Energy and Industrial Strategy:  
Phasing out the installation of fossil fuel heating in businesses  
and public buildings off the gas grid  
January 2022

The Royal Institute of British Architects is a global professional membership body driving excellence in architecture. We serve our members and society in order to deliver better buildings and places, stronger communities and a sustainable environment. Being inclusive, ethical, environmentally aware and collaborative underpins all that we do.

The RIBA welcomes the opportunity to respond to the phasing out the installation of fossil fuel heating in businesses and public buildings off the gas grid consultation. On 29 June 2019 RIBA Council voted to join the global declaration of an environment and climate emergency, two days after the UK Government passed a law to require the UK to end its contribution to global warming by 2050 by bringing all greenhouse gas emissions to net zero.

The climate emergency demands urgent action and leadership by the Government, architects and the wider construction industry. The RIBA welcomes these proposals as reducing dependence on fossil fuels is key to getting on track for net zero. However, the proposals must be accompanied by a long-term policy and investment programme for upgrading the energy efficiency of our building stock. We believe that there is a need for greater ambition on behalf of the Government if we are to significantly improve the performance and reduce the environmental impacts of the built environment.

The RIBA recommends that the Government:

- Consider additional trigger points for the natural replacement cycle such as point of sale, let or renovation.
- Implement a long-term policy and investment programme for upgrading the energy efficiency of our building stock which includes substantial and sustained government funding.
- Promote the use of “fabric first” and a “whole building” retrofit approach.
- Ensure these proposals complement the proposed Performance-Based Policy Framework in large Commercial and Industrial Buildings in England and Wales and the Private Rented Sector Regulations on minimum energy efficiency standards.
- Consider embodied carbon targets to ensure the full carbon impact of a building is measured.

## The proposals

**1. Do you agree with the principle of using the natural replacement cycle to phase out the installation of fossil fuel heating systems in non-domestic buildings off the gas grid? Yes/No. Please explain your response.**

Yes, we agree with the principle. However, it may not always be optimal for property owners to wait until their old heating system breaks to replace the system with low carbon heating such as a heat pump, which may also require complementary energy efficiency measures to be installed. In addition, there are other trigger points that the Government should consider for new low carbon heat installations – for example, point of renovation, and the let or sale of a property.

## Timelines for implementing the proposals

**2. Do the 2024 and 2026 timescales for introducing this policy provide sufficient lead in time for non-domestic off-gas grid consumers to prepare for their transition to low carbon heat? Yes/No. Please provide evidence to support your response where possible.**

The RIBA agrees that dates proposed would allow for time to prepare for the transition to low carbon heat. With the right support, regulation, advice and incentives – this timeline should be sufficient for industry and consumers to prepare for these changes.

**3. Would an implementation date of 2024 (for large buildings) and 2026 (for smaller buildings) provide sufficient lead in time for industry to prepare for the increase in demand? Yes/No. Please provide evidence to support your response where possible.**

The RIBA agrees that dates proposed would allow for time to prepare for the transition to low carbon heat. With the right support, regulation, advice and incentives – this timeline should be sufficient for industry and consumers to prepare for these changes.

**4. Do you agree with our proposal to introduce this policy for the largest buildings first? Yes/No. If not, please explain your reasoning, using evidence to support your response where possible.**  
**Proposed low carbon technologies**

The RIBA agrees with the Government's proposed approach.

**5. Do you agree with our proposals to take a heat pump first approach to the replacement of fossil fuel heating systems in off-gas grid non-domestic buildings? Yes/No. Please explain your response.**

Heat pumps are an effective way to reduce the carbon required to heat a building. The RIBA agrees that heat pumps should, at this time, be prioritised as replacement heating systems. However, as research and development continue, there may be new technologies and products that are low carbon and produce similar results to heat pumps, these should not be discounted.

A fabric first approach is key to ensuring that energy efficiency works actually improve the energy efficiency of a property and do not add additional costs to the building occupier. It is important, therefore,

that a whole building retrofit approach, which includes considered individual measures that are installed at the right time and work together, is undertaken for successful energy efficiency works. We must ensure all retrofitting works make a building more energy efficient and reduce the carbon impact of the built environment.

**7. What types of buildings are likely to fall into the ‘hard to treat’ category? Please provide evidence to support your response.**

As touched upon in the consultation, some buildings such as those which are heritage listed, are likely to be significantly more difficult to transition to low carbon heat.

**9. Will these alternative low carbon heating systems align with the net zero, sustainability, air quality and consumer experience criteria set out as bullet points in the ‘Alternative low carbon systems’ section? Please provide evidence to support your response.**

The RIBA welcomes the Government’s proposal that alternative low carbon heating must align with net zero, indoor air quality and consumer experience.

The RIBA believes that all buildings must be sustainable, safe and contribute to the health and happiness of the people that use them. This is why the [RIBA 2030 Climate Challenge](#) calls on RIBA Chartered Practices to meet net zero whole life carbon by 2030 by setting targets for operational energy, embodied carbon, potable water usage and also includes health and wellbeing metrics such as indoor air quality. Prior to installation of new low carbon heating systems key wellbeing metrics, such as indoor air quality, must be considered.

In addition, the current energy price crisis has highlighted the importance that any alternative low carbon heating system must have adequate energy supply to match the required demand to protect consumers from exorbitant costs.

### The cost of transitioning

**15. How can we support the green finance market to develop the products and investor demand that businesses will need to fund their transition to low carbon heat?**

The proposals in this consultation must form part of a wider long-term policy and investment programme for upgrading the energy efficiency of our building stock.

This will require green financing options, such as green mortgages, to ensure the uptake of energy efficiency measures. Lenders could offer lower interest rates when energy efficiency works are complete. The Government has a key role to play in ensuring that these products come to market so building owners can invest in energy efficiency and are not locked into unsustainable debt.

To ensure that energy efficiency improvements receive adequate funding and long-term policies, we suggest that coordination across departments could be more effective through a HM Treasury led infrastructure approach.

We suggest that improving the energy efficiency of England's building stock must become a national infrastructure priority. To date, buildings have not been seen as part of the nation's infrastructure and have therefore been on the receiving end of less funding on the basis that energy efficiency improvements have not been funded as part of the Government's infrastructure investments portfolio. Infrastructure projects by HM Treasury are valued more highly on the basis that they are deemed to have higher private sector multiplier effects, meaning they are seen to offer better returns on investment.

Making energy efficiency a national infrastructure priority would have real benefits. It would lead to energy efficiency improvement investments to be considered, as is the case with other infrastructure priorities, on a longer time horizon than the 5 to 10-year cycles that dominate current policy discussions.

Broadening the time horizon on which the Government are considering energy efficiency investments would send a clear signal to the private sector of the direction of travel and would begin to help eradicate the stop-start nature of policy in this area.

### Consumer protection

**19. Do businesses that install low carbon heating systems with a capacity over 45-kilowatts require consumer protection? Yes/No. If Yes, how should this differ from standards available for installations up to 45-kilowatts?**

The Government has a key role to play in ensuring consumers are protected from misinformation or scams that could cost both the organisations and the environment.

### Managing compliance

**20. Do you have any views on how best to ensure compliance with the proposed regulations laid out through this consultation? Please provide evidence to support your answer.**

Possible avenues for ensuring compliance could include requirements at point of sale/let (with a potential role for estate agents/mortgage providers); requirements at point of major renovation; requirements through the planning system; revisions to Part L of the Building Regulations; energy company audits and inspections; and Local Authority trading standards for companies selling heat appliances. For enforcement to be successful, adequate funding and capacity for enforcement bodies will be required.

### Other trigger points to reinforce the policy

**22. What are the potential implications for businesses of introducing an end date by which all buildings must have transitioned to low carbon heating (e.g. in the early 2040s)**

We agree it will be necessary to ensure an end-date for the use of remaining fossil fuel heating in buildings off the gas grid by the late 2040s, or sooner. A clear timeline will provide confidence and clarity for industry and businesses to plan and invest. A hard backstop will be important to prevent potential loopholes, for example with people replacing various parts of existing high carbon heating systems, while stopping short of purchasing a new item.

However, a hard-stop end date will need to be accompanied by long-term financial and non-financial support.

**23. What are the potential implications for businesses of introducing trigger points for installing a low carbon heating system, in addition to the natural replacement cycle, such as at the point of let or sale?**

The RIBA welcomes the use of additional trigger points – such as, point of renovation, and the let or sale of a property – for installing a low carbon heating system. This could help businesses prepare for the installation, for example, by improving the energy efficiency of the building, in advance of requiring a new heating system. This could allow for longer-term planning and budgeting for the costs of a new heating system and associated energy efficiency improvement works.

## **Equality Act 2010**

**25. Do you have any views on what more could be done to ensure businesses and communities affected by our proposals experience a smooth transition to low carbon heat? Please provide evidence to support your answer.**

A clear long-term investment programme for upgrading the energy efficiency of our building stock, raising awareness and public engagement, providing trusted and tailored advice, consumer protections, and supporting supply chains through up-or-reskilling are imperative to help those affected by the proposals transition to clean heat.

## **End of consultation**

**26. Please use this space to provide any further views not already captured in your responses to the previous consultation questions.**

The RIBA welcomes that this policy will complement the proposed Performance-Based Policy Framework in large Commercial and Industrial Buildings in England and Wales and the Private Rented Sector Regulations on minimum energy efficiency standards. However, ensuring these policies work cohesively is important for business clarity and confidence.

Understanding building performance, compared to its design intention, is integral to continuous improvement in the built environment. Even when a building's design has energy efficiency at its heart, the promised energy efficiency standards are not always met.

We must understand how our buildings perform to identify the improvements that can be achieved. Measuring operational energy, pre- and post-retrofit, is a vital mechanism for comparison. This will allow for occupants to see the energy reductions and cost savings of the retrofitting improvements. This should be done through Post Occupancy Evaluation.

Finally, the importance of embodied carbon in retrofitting works has not been considered in the consultation. Embodied carbon refers to the carbon emitted from the processes associated with sourcing materials, fabricating them into products and systems, transporting them to site and assembling them into a building. It also includes the emissions due to maintenance, repair and replacement, as well as final demolition and disposal.

There is a risk that building owners or users may prioritise low-cost retrofitting solutions which may result in choosing readily available products with high levels of embodied carbon. The Government should introduce embodied carbon targets to help ensure that the materials used are not inadvertently damaging the environment. Embodied carbon is critical when considering the carbon emitted from a building as a whole.

Considering embodied carbon will also increase the demand for low carbon materials. This will help stimulate growth in low-emission manufacturing of traditional materials, promote new low carbon products and will also encourage the use of local materials, driving the built environment to source products from the UK, where possible.