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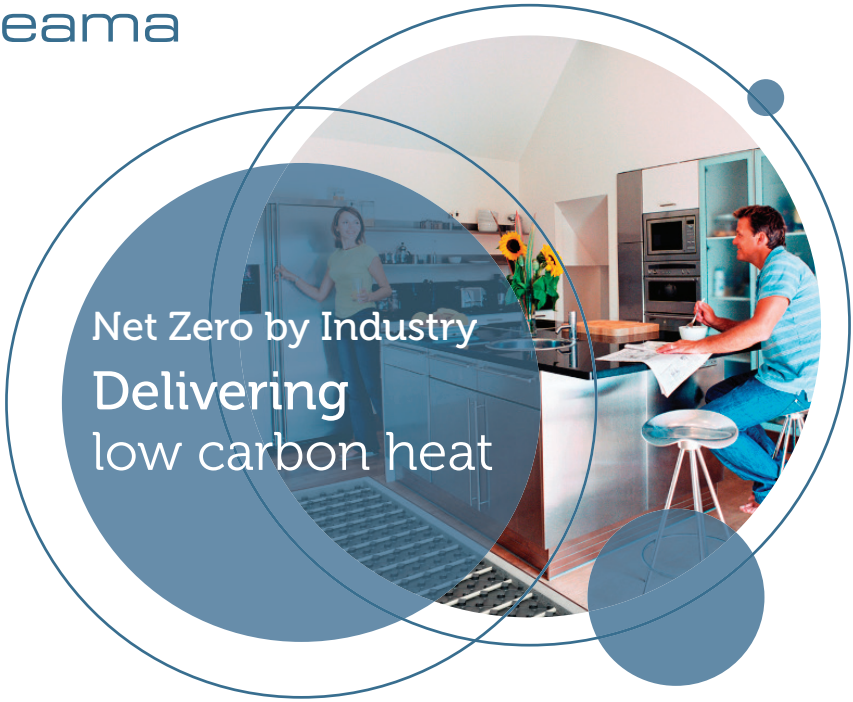

Net Zero by Industry
Delivering low carbon heat

Up to £12 billion per year is required over the next 15 years to support households to decarbonise their heating systems[1].
But this could go hand in hand with securing the electrical grid, with total flexibility from electric heat potentially saving 10-14% of peak demand by 2050[2].

Every home has a suitable low carbon solution – we just need to leverage them and prepare consumers for the change.
The UK has access to a range of effective electric heating technologies which are already widely used globally. It's time to make consumers aware of what options are available.

Low carbon electric heat can be affordable, both upfront and during use. This includes heat pumps[3] and other forms of electric heating.
With only a small 10% difference in costs over 15 years between a range of technologies options[4]. Lower electricity costs increase consumer cost-optimalisation even further.

Smart enabled technology and controls are key to unlocking the efficient and responsible use of electrified heat, especially with time of use tariffs increasing.
With benefits including increasing the efficiency of heating systems and reducing peak time demand on the grid, with 86% of consumers willing to adopt smarter home energy use[5].

1 Second National Infrastructure Assessment (NIC, 2023)
2 Future Energy Scenario 2023 (ESO, 2023)
3 A heat pump might be a lot cheaper than you think: here's how (Which, 2023)
4 Cost-Optimal Domestic Electrification (BEIS, 2021)
5 How to build a Net Zero society (The Behavioural Insights Team, 2023)

Core electrification technologies are already here.

We already have a range of globally utilised electric heating solutions available in the UK, covering heat pumps, direct electric, and storage technologies. But we must stop thinking of these technologies in isolation. Our thinking must shift to realising the potential of these solutions as part of an interactive whole house solution. This enables us to maximise the energy efficiency potential of the UK housing stock as we move away from fossil fuels and ensure affordability, when combined with revised cost of electricity regulation.

We must consider the benefits of smart controls and demand side response tariffs when looking at low carbon heat, ensuring that technologies are attuned for grid flexibility and high user control. Reaching Net Zero is only cost effective with energy efficiency and electrification and demand reduction through insulation go hand in hand. This cannot ignore that better insulation will lead to harmful indoor air quality unless ventilation is also considered with our low carbon heat strategy.

To ensure a just transition of low carbon heat, funding programmes should support all these measures to offer varying, interconnect consumer package options for UK decarbonisation and encourage a culture of innovation within UK manufacturing.

The cost of electricity is key to affordable electrification.

If we are going to make electrification an attractive solution and increase private investment and skills within this vital Net Zero sector, regulation must make electricity an attractive financial energy option. **Only the Government can remove this barrier by adjusting the energy levies and decoupling the cost of electricity from gas within core UK policy.**

- **Electric heating** can decarbonise homes, but we need the right environment for growth.
- **Innovation potential** is high with electric heating, with high potential global demand.
- **Holistic policy** is needed to reflect how technology, fabric and controls benefit together.
- **Government** holds the key to affordable electrification cost of electricity regulation.

LEARN MORE ABOUT WHAT IT WILL TAKE TO DELIVER NET ZERO HOMES AND INFRASTRUCTURE – **VISIT OUR CENTRAL HUB**

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