

Say Hy to the home of the future

- UK's first homes with appliances fuelled entirely by hydrogen will be built in Low Thornley, Gateshead, with funding from the government's Hy4Heat innovation programme, Northern Gas Networks and Cadent
- the houses include hydrogen appliances such as boilers, hobs, cookers and fires that release no carbon emissions – providing the public a glimpse into the potential home of the future
- demonstrates the potential of hydrogen energy to help achieve the government's ambitions to eliminate the UK's contribution to climate change by 2050

The UK's first homes with household appliances fuelled entirely by hydrogen are set to be built in Low Thornley, Gateshead, providing the public a glimpse into the potential home of the future where no carbon emissions are released.

The 2 semi-detached homes, funded with the help of the UK government's [Hy4Heat Innovation programme](#), will open in April 2021, showing how hydrogen has the potential to be used as a clean replacement to natural gas in the home.

The hydrogen house project is aligned with a larger scheme detailed in the Prime Minister's [Ten point plan](#) which also includes establishing a Hydrogen Neighbourhood, and to the development of plans for a potential Hydrogen Town before the end of this decade.

The houses will use 100% hydrogen for domestic heating and cooking in appliances including boilers, hobs, cookers and fires.

Unlike natural gas, which is responsible for over 30% of the UK's carbon emissions, hydrogen produces no carbon at the point of use, with the only by-product being water.

Hydrogen could play a vital role in achieving the government's commitment of eliminating the UK's contribution to climate change by 2050, with the industry creating up to 8,000 jobs across Britain's industrial heartlands and beyond by 2030, potentially unlocking up to 100,000 jobs by 2050.

Energy Minister Anne-Marie Trevelyan said:

From running a hot bath and cooking our evening meals to turning on the heating, most of us use natural gas every day. However, to tackle climate change, we need to find alternatives to fossil fuels and move towards making clean energy the norm.

While these new houses in Gateshead will look like any other, they will showcase how low carbon hydrogen can transform the way we power our homes and offer a glimpse of what the future holds as we

build back greener.

The project secured a £250,000 grant from the government's [Hy4Heat Innovation programme](#) and is being run by gas company Northern Gas Networks and Cadent, who have both also input £250,000 of funding each.

The houses are planned to be open to members of the public, who will be able to view appliances and see how they compare to existing ones. Local schools, colleges and universities will also be welcomed to learn about the new technology, as well as potential careers in the emerging green economy and in science, technology, engineering and maths (STEM) subjects.

Mark Horsley, Chief Executive Officer of Northern Gas Networks said:

We're delighted to be working with BEIS and Cadent on this unique demonstration, which gives energy customers a first glimpse at hydrogen technology in the home.

Just like natural gas, hydrogen can heat homes in exactly the same way, meaning minimal change for customers in terms of how they use gas for heating or cooking.

The houses bring to life the potential of this green gas for keeping UK homes warm, while minimising impact on the environment.

Steve Fraser, Chief Executive Officer at Cadent said:

We are proud to be part of this important project where we will be able to show customers what their future gas appliances will look like. A familiar sight to them, with one difference, they will be powered by hydrogen.

These projects are so important to demonstrate a decarbonised energy solution in homes now.

Today's announcement comes ahead of government plans to publish its Hydrogen Strategy later this year, which will outline plans to build a UK hydrogen economy.

The hydrogen houses are intended to have a 3-year lifespan, but potentially longer, up to 10 years. They are not intended to be habitable, but to showcase the use of hydrogen fuelled applications in a real-world domestic setting.

The innovative hydrogen appliances have been produced with support from the government's Hy4heat innovation programme.

The 2 hydrogen houses are being built at Northern Gas Networks' site in Low Thornley, Gateshead.