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Haydale Graphene Industries plc

('Haydale' or the 'Group')

Haydale and City Energy Develop Graphene UFH with Plumbase

Haydale, the global technology solutions company, is delighted to announce it is working with City Energy Network Limited ("City Energy") and Plumbase Limited ("Plumbase") on developing and distributing its graphene underfloor heating ("UFH").

The proven ink heater technology applied to clothing worn by British athletes at the Tokyo Games has been applied in an initial prototype for domestic UFH with the potential to replace gas central heating and link into other energy efficient technologies.

The development, which is being supported by City Energy, will produce a further prototype that will lead towards a market-ready CE product that can be tested in a home environment. When fully certified, Plumbase, the UK's largest local plumbing supplier, intends to distribute the product through their nationwide branches with installation through City Energy's installer network.

With the UK commitment to reducing emissions to net zero by 2050 and the likely ban on domestic gas boilers in new homes in two years' time, graphene UFH offers an energy efficient way to heat our homes.

The UFH panels generate heat using Haydale's printed functionalised graphene ink at low power (12v battery). The heaters can be printed into different shapes and sizes, are easy to install and are compatible with all modern construction materials.

Unlike infra-red and wired heating systems, Haydale's graphene UFH system is designed to be a convector heater, which heats the air and room through thermal convection rather than the body in the case of infrared heaters.

Commenting on the project, Haydale CEO Keith Broadbent said: "Haydale has been working closely with City Energy to look at new technologies aimed at net zero. I am pleased we can now announce that together we are taking our graphene underfloor heating to the next stage and with Plumbase supporting there is a potential to distribute the technology when it is market ready as an energy efficient heating solution for domestic and commercial properties."

Commenting jointly on the exciting project, City Energy National Business Director and Haydale Non-Executive Director Ryan Howard, and Plumbase Sales Development Director Danny Taylor added: "We're very pleased to be supporting such an important and exciting project in times when energy prices are so high. Our decision to develop the product further and bring in our partners to take it into the property sector was an easy one given our current aim is to reduce energy bills for those in fuel poverty and significantly help those in need."

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Notes to Editors

Haydale is a global technologies and materials group that facilitates the integration of graphene and other nanomaterials into the next generation of commercial technologies and industrial materials. With expertise in graphene, silicon carbide and other nanomaterials, Haydale can deliver improvements in electrical, thermal, and mechanical properties, as well as toughness through its state-of-the-art functionalisation. Haydale has granted patents for its technologies in Europe, USA, Australia, Japan, and China and operates from five sites in the UK, USA, and the Far East.

For more information please visit: www.haydale.com

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