

7 April 2022

## **UPDATED DISTRICT HEATING GUIDANCE FROM BPF PIPES GROUP**

The huge price increases being experienced for energy use are affecting almost everyone and alternative ways of heating our homes and offices are constantly being sought. District heat networks are one way to lower energy costs for individual users in multi-occupancy buildings through the use of central heat sources rather than individual boilers.

The BPF Pipes Group has updated its guidance on district heating systems using polymer pipes and it is available at [Plastic Pipes Group | PPG - Support & Downloads - Guidance \(bpfpipesgroup.com\)](https://www.bpfpipesgroup.com). The guidance covers design codes, distribution pipework and standards along with planning, transport, installation, commissioning and operation. As with all BPF Pipes Group guidance documents, it is aimed at promoting best practice and right-first-time installation for long-lasting pipe networks.

According to the Energy Saving Trust just over 2 per cent of the UK currently uses district heating systems, with 17,000 heat networks in place having half a million connections, mostly from domestic customers. Particularly suited to densely populated areas with multi-occupancy buildings, the potential for district heating to grow is positive.

The district heating concept comprises centralised heat sources instead of individual boilers. By pumping hot water or steam through a network of pre-insulated underground pipes heat is delivered from the point of energy generation to the end user. Generating heat in one central plant can be more economical than production in multiple smaller ones (such as individual households), which is one of the reasons why district heating is growing in popularity. Labour and maintenance costs are lowered and carbon emissions can also be reduced, particularly if renewable energy sources are used.

A recent BBC article described two district heating systems about to become operational, one where the use of water from old mine workings in the Gateshead area is being pumped

through a super-sized heat pump and green district heating system to up to 5,000 homes, each having heat exchangers rather than individual boilers. Another district heating system in London will be using warm water from nearby aquifers to pump heat to local homes and businesses.

Polymer based piping solutions have demonstrated many advantages over traditional steel systems for district heating. For example, they require fewer joints than steel, taking away the need for weld joints every six or 12 metres. As a consequence, there are fewer health and safety measures required and no welding tents to keep the jointing area dry. There are many more advantages which significantly reduce installation times and trench excavation costs, delivering projects with overall lower costs and greener credentials.