



sheffield district energy network



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the district energy network

The District Energy Network has been providing an economical, low carbon and environmentally-friendly heat source to buildings in Sheffield since 1988. It is one of the largest and most successful District Energy Networks in the UK, supplying many domestic, commercial and public sector buildings with a sustainable energy source.



The concept of the District Energy Network is simple but the design and operation is ingenious. By harnessing what would otherwise be a wasted heat source from the local Energy Recovery Facility, the District Energy Network provides energy in the form of hot water to businesses, householders and the local authority through the ever-increasing network of pre-insulated underground pipes. The network provides a cleaner, greener, low carbon source of energy.

The benefits of District Energy

District energy offers many other benefits making this an energy source that exceeds the performance of others in a multitude of ways. So what are the benefits associated with a connection to the District Energy Network?



Economy and efficiency

- **Reduced costs**
Savings can be made on connection, operation and maintenance costs. Businesses can also avoid the Climate Change Levy
- **Space saving**
The equipment used to transfer the heat from the network takes up less than one quarter of the space of a conventional boiler plant, allowing valuable space to be put to other uses
- **High efficiency**
More useful energy is produced with less fuel input because the heat exchanger equipment is more efficient



Service and reliability

- **Reliability**
Skilled engineers monitor the network 24 hours a day. Backup heat supplies can be introduced via hi-tech control systems at a moment's notice
- **Service**
Experienced Service Engineers are on call 24 hours a day for assistance
- **Safety and control**
Harmful emissions are not produced by the heat exchanger so a flue or chimney is not required. The heat exchanger can be linked to a variety of control systems allowing individual management



Environmental savings

- **Cleaner environment**
Connected buildings contribute an improved local air quality
- **Conservation**
When a connection to the District Energy Network is made, a building no longer uses fossil fuel to provide heating so precious resources are being conserved
- **Low carbon**
The carbon content of District Energy is calculated as 0.077kg of CO₂ per kWh

make the connection

The District Energy Network is extensive, reaching many areas of Sheffield including Netherthorpe, Western Bank, the Heart of the City and Weston Park Hospital.

The network is continuously expanding to allow further connections to take place.

Our portfolio of existing customers illustrates that low carbon district energy is a viable option for many types of buildings. To examine which areas of Sheffield are served by the network, please refer to our online network map at: www.veolia.co.uk/sheffield

To find out how you can be connected to the District Energy Network, call: **0114 228 3680**



Old buildings

When a building is refurbished or the heating system comes to the end of its useful life, Veolia Environmental Services can provide a viable alternative to electricity or gas because conversion is a relatively simple process.



New buildings

If a connection is incorporated into the design of a new building, there is a huge potential to make cost savings by avoiding costs of boiler plant and associated flue. By eliminating the need for a boiler, useful space is released. Buildings such as the Macdonald St. Paul's Hotel and the Winter Gardens in Sheffield have done just that.



Domestic properties

Veolia Environmental Services provides a safe, economical and flexible means of heating for medium and high-density housing. By installing a central heat exchanger, space is saved in the dwelling and the resident enjoys all the other benefits of an efficient heating system.

some of the buildings connected to the

district energy network



The first two Netherthorpe tower blocks were connected in 1998 and the second two blocks were connected in 2001 as part of Sheffield City Council's refurbishment programme to the flats. The network provides an economical and safe method of providing heat to high rise homes.



Veolia Environmental Services supplies over 45MW of heat and 10MW of hot water to the University of Sheffield whose sites are located throughout the city.



The Millennium Galleries are a major development in the heart of Sheffield City Centre. The building was connected to the District Energy Network prior to opening in the spring of 2001.



Sheffield's Victorian theatre, the Lyceum, was first connected to the District Energy system in 1991 following a £12 million renovation.

The District Energy system can supply up to 1.2MW of heat to the theatre. Since connecting, the theatre has consumed over 14,000,000 kWh of energy, saving over 2,600 tonnes of CO₂ from being released into the atmosphere.



Sheffield's Crown Courts were connected in 1994 and are situated to the north west of the city centre. The heat exchangers that were installed by Veolia Environmental Services have a capacity to supply 2.2MW of energy. The building's heating system uses 1.8MW and the remaining 400kW is used to satisfy the building's hot water demand.



The impressive Winter Gardens development in the heart of the City is now connected to the District Energy Network. A thirty year heat supply agreement was signed in August 2002 and a heat exchanger has been installed to provide optimum temperatures for the plants throughout the year.