



# Connecting Nottingham's Businesses to Low Carbon Energy –

## Join the movement

# Nottingham's biggest provider of low carbon energy

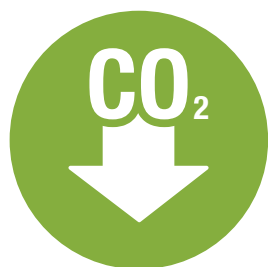
Enviroenergy London Road Heat Station



# \\ About Us

Set up in 1972, we are a heat and power company now wholly owned by Nottingham City Council. We make heat and electricity from the steam produced by the Eastcroft Energy from Waste (EfW) incinerator plant. This serves thousands of customers with low carbon, low cost heat and electricity.

Each year the scheme uses approximately 170,000 tonnes of waste (equivalent to the weight of a modern cruise ship) this prevents the need for landfill and the associated release of landfill gases. Also compared to traditional heating systems this scheme offsets around 27,000 tonnes of CO<sub>2</sub> emissions by converting the useful energy in our waste into heat and power.










**By using Nottingham's District Heating Network, our customers are saving money and helping to tackle global warming.**

At our Heat Station on London Road, we convert this heat into electricity and hot water. Hot water is distributed to customers over our extensive pipe network that covers much of the city centre, St Ann's and parts of Sneinton. The network is made up of an estimated 85km of insulated underground pipework running across the city, heating around 5,000 domestic properties and 100 commercial customers.

Electricity is supplied to major commercial customers using dedicated private wire cabling, with the balance being spilled to the National Grid.

Delivering energy in this way is reliable and gives you flexibility of control for your electricity or heating plus hot water needs.

As an Enviroenergy customer you will...

-  have low cost energy
-  achieve large carbon savings
-  avoid using fossil fuels
-  have diverted waste from landfill
-  have a more efficient heating system compared to traditional options
-  have a heating system that requires minimal maintenance
-  qualify for the Climate Change Levy (CCL) which will further reduce your energy bills



Eastcroft Incinerator

If you are interested in knowing more about Nottingham's low carbon energy, please speak to our Business Development Officer on **0115 955 66 77**.



# \\ The energy to develop

Nottingham is experiencing unprecedented change; businesses are expanding, new businesses are moving into the city and much of the city's infrastructure has been greatly improved. Alongside the development and economic growth of the city is a desire to be greener and save money.

Enviroenergy too is experiencing a period of growth and is well placed to help businesses save money and improve their green credentials. The pipe network is currently being expanded and by utilising the latest technology in District Heating we have also further increased our capacity to, so we can support more businesses and homes.

## **A great solution for both new developments and retrofitting existing buildings**

The plant required to connect to Nottingham's low carbon energy uses less space and costs less than gas or electric alternatives – sometimes as little as half the price.

Avoiding the use of gas can save considerable amounts of work and money in residential developments since no boilers or flues are needed. This can also make it easier to get planning approval for the development of historic or listed buildings and makes buildings safer for the people who use them.



Pipe work being laid



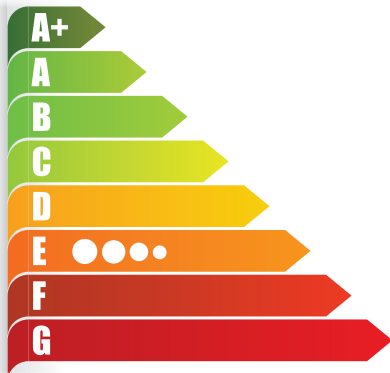


Typical Plant Rooms



### Services we can provide

- All your building's thermal needs – heating and cooling
- Hot Water
- Electricity
- Access to energy management and to energy efficiency and renewable advice.



### Meeting building regulations and greener codes of practice

The Energy Performance of Buildings Regulations specify that from 2018 all lettable commercial buildings will need to have an Energy Performance Certificate (EPC) grade E or above. A connection to our low carbon energy supply will improve your energy performance levels and help you meet this requirement.

A connection is a cost effective and straightforward way for developers to meet desirable sustainable building codes of practice such as;

- Code for Sustainable Homes
- BREEAM certified developments
- The emerging Energy Efficiency standard for Zero Carbon Homes.

Meeting these accreditations will increase the value of your development.

### Cost effective energy solutions for capital required and ongoing costs

We are here to help and advise. Talk to us about your proposals for both new and existing developments and we can work with you to develop a suitable finance plan for your investment into low carbon energy.

Enviroenergy is at the forefront of the low carbon energy supply in the UK, being founder members of the UK District Energy Association, and a member of The Association for Decentralised Energy.



# \\ You'll be in good company

Large commercial premises, places of entertainment and big office buildings use a large amount of energy. They need to be warm or cool as required, they need lighting and they need to serve the needs of their many users, often around the clock. Energy efficiency is key to optimal building management and on a large scale it can have real impact on the bottom line. Decisions about energy supply should not be taken lightly.

The environmental performance of your building reflects upon your whole operation, and in the polluter-pays future, even the value of your brand. Environmental audit is higher up the agenda in many companies these days and we need to look for opportunities to add environmental value wherever we can.

Many of Nottingham's premier buildings, and some of its newest, have the environmental advantage of using Nottingham's low carbon energy for their electricity, heating and hot water. The National Ice Arena, intu Victoria Centre and intu Broadmarsh shopping centres, Nottingham Council House, Capital One, the Jurys Inn, and the City Council's Head Office at Loxley House all use energy which is generated locally and recovered from domestic and commercial waste.

As Nottingham continues to grow, older buildings are being converted to new uses and new buildings are springing up. By using Nottingham's low carbon energy, building owners will reduce their reliance on fossil fuels, helping to combat global warming and protecting Nottingham's future environmental performance. Our customers will see real cost savings over time for themselves and their tenants, and their investment buoyed by that environmental competitive advantage.

If you have buildings that are well placed to use Nottingham's low carbon energy, be they new-build, conversions or simply in need of a new boiler, and you want to know more, please get in touch.

**Please call 0115 955 66 77 and speak to our Business Development Officer.**





## Join the Movement – Nottingham: the UK's Energy City

Nottingham is leading the UK in a number of key low carbon energy areas and has positioned itself as a strong contender with other leading European 'low energy' cities. Since 2005 the city has reduced its carbon emissions by 33% smashing its ambitious 2020 target of a 26% reduction four years early; the District Heating Network played a key part in enabling the city to meet this target.

Almost 15% of the energy used in the city comes from low carbon or zero carbon sources making Nottingham the most Energy Self Sufficient city in the UK.

# How is energy from waste produced?





# Information For Your Business

## How can my premises use Nottingham's low carbon energy?

We can meet your building's thermal comfort, hot water and power requirements. For heating rather than using a traditional gas or oil powered boiler, customers' buildings are fitted with heat exchangers which service internal water filled heating systems, pipes and radiators, just as a traditional boiler would. For cooling, traditional air conditioning systems are replaced with absorption chilling equipment. Hot water used in the building is also supplied via the heat exchanger. Electricity can be supplied through a private wire network.

## How do we know how much heat you are using?

Metering equipment calculates the amount of energy used by each customer in kWh by monitoring the temperature of our hot water entering and leaving the premises and the rate of flow of the water. If your premises are used solely by one party, either yourself or a tenant, this metering equipment will be used to calculate one bill.

If your building is used by many parties, for example in a sub-divided office building or apartment block, then each user will have a consumer connection board which controls and monitors heat being drawn from the buildings central supply. This equipment would be used to generate individual bills for each consumer. Each metering point will have remote meter reading equipment installed that enables the heat meter to be read without the need to access the premises or disturb the occupants.



Nottingham Contemporary. District Heating customer

## How would I pay?

Commercial customers are invoiced monthly based on a meter reading.

These invoices will be sent out monthly in arrears, so you will only pay for the energy you have used.

## What if the property has multiple businesses?

This can be managed in a number of ways. Two suggested methods are:

- The supply into the building can be metered and this will then be charged directly to the Service Management Company for the building. The Service Management Company can then apportion and re-charge the individual tenants for heating and hot water.
- Individual metering equipment can be installed in to each area, with any communal areas being charged to the Management Company. This option will require a higher level of capital investment, but it might best suit a residential development, or offices of multiple occupancy.



Motorpoint Arena. District Heating and Power Customer





Nottingham Trent University, District Heating customer

### **What about other utility supplies to my premises?**

**Electricity:** you would buy this as normal through a utility supplier. We can also supply electricity through our own cables to large customers, depending on loading required.

**Gas:** you can still have a normal gas supply to your building if you wish. If gas is not essential or if electrical cooking equipment is installed, then a gas supply may not be necessary. No flues are needed so internal building design is made easier and planning permission, particularly for development of listed buildings, may be easier to obtain.

### **How reliable is the supply of Nottingham's low carbon energy?**

Our system is very reliable and requires minimal maintenance. Our own service engineers back up this reliability as they are on call 24 hours a day, seven days a week.

As part of a major capital program to modernise Nottingham's District Heating infrastructure the system has an annual shut down period, this ensures that our customers continue to receive a reliable, consistent supply of heating and hot water. The length of the shutdown will always be kept to an absolute minimum, usually lasting around 48 hours, and will be held during the summer to minimise disruption. Power customers are not affected by the shutdown period.

### **How soon could I be using Nottingham's low carbon energy?**

We can normally have a building connected to our network and using low carbon energy in around 16 weeks from signing a contract for supply.

### **How much will Nottingham's low carbon energy cost?**

To calculate the capital cost we need to examine your building and its position in relation to our existing network. The building's maximum levels of demand are used to determine the plant required.

We need to understand how your building is to be used and the existing heating and hot water arrangements. This data will enable us to calculate the capital costs and the unit price of energy to be supplied. It is key to understand that the Nottingham District Heating Network is virtually 100% efficient.



# Find out how to save your business money and lower its carbon footprint at the same time

## Call us today



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Enviroenergy & Nottingham City Council are recognised as experts on District Heating schemes. They are founder members of the UK District Energy Association and have been operating for over 40 years in this sector.

