GREEN ENERGY news

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WINTER 2002

Winter Gardens gets connected

The impressive Winter Gardens development in the heart of the city is now connected to the district energy network.

Work commenced to make the small extension of the network from Surrey Street into the development site in August. The extension was made from the section of the network that already serves buildings like the Library, the Millennium Galleries and the Central Deaf Club.

A 30-year heat supply agreement was signed at the beginning of August 2002 and the heat exchanger has now been installed to provide the important task of maintaining the plants at their optimum temperature throughout the year.

A specially designed underfloor heating system will keep the ground warm and this will, in turn act like a giant radiator keeping the entire structure at the right temperature. As well as the plants that are housed within the impressive structure, the people passing through will also feel the benefits of district heating.

The plants and trees won't be the only thing that is green when the building opens it's doors to the public. The district heating connection means that each year approximately 111 tonnes of Carbon Dioxide will be prevented from release into the atmosphere. By utilising district energy the building avoids the need for a flue, which may have interfered with its wonderful structure.

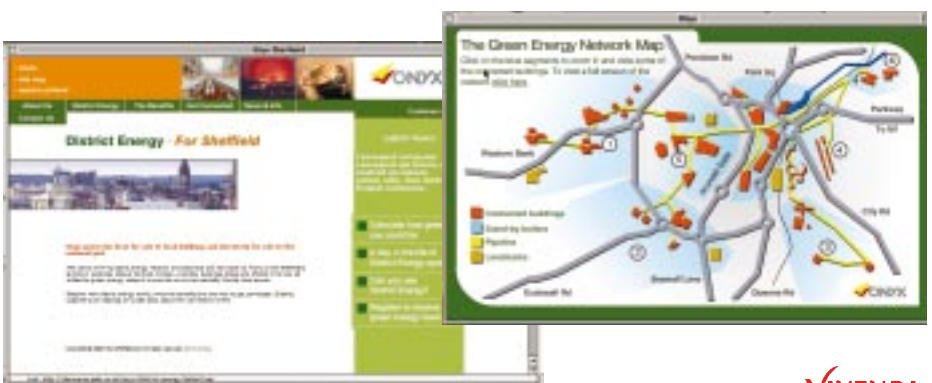
THE NETWORK ON THE NET

The green energy network gets a new web site. Log on to www.greenenergy.co.uk

● Find out more about district energy and the network in Sheffield. ● Test how green your building could be if it was connected to the district heating network ● Investigate if more of your buildings can be connected.

CUSTOMERS, get your password for the customer login section to get details about your district heating supply on line.

E-mail us on districtenergy@onyxgroup.co.uk NOW to receive your password and username.



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Potential for Community Heating Development in the UK

Sheffield's district heating network is heralded as an example of how district/community heating can provide a viable option across towns and cities across the UK. A recently published DEFRA-funded study identifies the potential for community heating stating that one in four could save on fuel bills.

The report, "The Potential for Community Heating in the UK", draws together data on heat demand across all UK postcode areas and calculates the potential for cost-effective implementation of community heating schemes.

The report offers a significant boost to the promotion of community heating and, as such, is being disseminated through the Government's Community Energy programme which is jointly managed by the Energy Saving Trust and Carbon Trust.

Dr Eoin Lees, Chief Executive of the Energy Saving Trust, said: "The study shows there is a real opportunity for local authorities to bring social, economic and environmental benefits to their communities through community heating.

"More than five million homes, 750 schools, 200 hospitals and 80 universities could be connected to community heating schemes which would prove cost-effective at the Treasury's six per cent discount rate."

By generating energy more efficiently, community heating with CHP can significantly reduce Carbon Dioxide emissions; if all of the capacity identified were installed, carbon savings of some four million tonnes per annum could be achieved. This equates to around 20% of the UK's emissions reduction target under the Climate Change Programme. Community heating also reduces fuel bills for local authorities and their tenants, freeing up resources for other frontline services and helping to alleviate fuel poverty.

The Community Energy programme provides funding and support to local authorities and public sector organisations for the development, extension or refurbishment of community heating schemes.

District Energy - the Solution to Green Pressure

With the focus firmly on the environment and the search to find ways to decrease our impact it is no surprise that the government enforce strict conditions regarding insulation and heat emissions on new homes and commercial properties.

A recent article stated that the cost to the construction industry could be in the region of £75 million a year. These costs will obviously be passed to the buyer as the true effects are felt.

All building work started after April 2002 will be subject to increased legislation that states that the building must have increased insulation and less polluting energy systems. At the moment, in many cases, the products on the market to help builders to achieve this are normally more expensive than materials traditionally used to meet Building Regulations in force prior to April due to supply and demand.

However, there is good news for developers and builders in Sheffield. It is often perceived that there is a premium to be paid for environmentally sound products and services. This is not the case if District Heating is chosen as the energy source. Onyx Sheffield Ltd, District Energy Division's philosophy is to provide a competitive energy source. The environmental benefit that is gained from connecting to the network provides added value for the builder, the end user and the environment.

By using district heating the builder can ensure that building regulations are met in the knowledge that they have installed an energy efficient system at the same time as keeping installation costs down. This in turn will help the builder to provide a competitive building in the marketplace and one in which the end user will be satisfied with the economical and environmentally friendly heating system.

Energy Recovery Facility plans are Approved

Sheffield's new Energy Recovery Facility has finally got the green light from the City Centre and East Planning and Highways Board. The Planning Board approved the construction of a 225,000 tonne Energy Recovery Facility that will use waste to generate heat for the city's award winning district heating network and power to the National Grid.

Edward Thomas, Development Director, said: "Onyx is pleased that the City Council agrees with our assessment that an Energy Recovery Facility is the best practicable environmental option for the city within our wider proposals for waste reduction and recycling. We are very keen to continue our relationship with local community. We have plans to set up liaison groups with local representatives, which will meet on a regular basis. Members' views will be heard and fed in to our decision-making process".

A new state of the art Energy Recovery Facility will produce environmentally friendly energy. This is the best practical environmental option for dealing with Sheffield's waste. The Environment Agency has already issued a Pollution Prevention Control (PPC) permit for the operation of the new facility.

Onyx is committed to promoting waste reduction in the first instance. It will also reuse and recycle as much as possible, before using waste for Energy Recovery. Onyx will increase recycling rates threefold in Sheffield by 2005 - a massive challenge.

Construction will start on site early next year.

Making the most of Metal

Onyx is keen to prevent waste that should be recycled ending up in the bin. As the company's work progresses in the city an education programme along with an increase in the number of recycling facilities available should help to ensure that the residents of Sheffield have the opportunity to do something other than put their rubbish in their wheeled bins.

However, we will never guarantee that all recyclables have been removed from the waste stream before it ends up at the Energy Recovery Facility. With this in mind we need to put facilities in place to recycle as much as possible from the Energy Recovery process.

Metals are a key component in the waste stream. Onyx has reinstated the metals recovery facility at Bernard Road to remove metals from the ash.

Here's how it works.

- Waste, including metals, is delivered to the tipping pits and goes on to be incinerated.

- The ash from this process goes through a water quench pit and onto a conveyor. Above this conveyor, overband magnets pick up the metals and throw them onto a chute, this then drops them into a large skip. The metals recovered are taken for recycling.
- Until recently, this system had not been operating fully. However, the Onyx Sheffield maintenance team has spent a lot of time and effort to get the magnetic separators up and running.
- Two additional conveyors have been installed so that the metals will load directly into large skips. These conveyors run for 24 hours a day.

The Sky is the Limit

Our Operations Manager, Peter Mildenstein, recently helped to raise £36,000 for the Children's Appeal at Sheffield Children's Hospital by doing a sponsored parachute jump. The sky was the limit for Peter who had never done a parachute jump before. Peter and the other 97 people who plucked up enough courage to jump out of a plane were given guidance and training from the Red Devils.

His bravery was all in aid of raising more cash for the Children's Appeal that provides funding for specialist equipment and to carry out pioneering research as well as improving amenities for patients and relatives.

If you fancy getting a birds eye view and raising some cash for charity, the children's appeal will be holding more parachute jump events next year. Call the Children's Appeal to find out when and how you can get involved on **0114 271 7203.**

Diverting for Development

As the development to provide new homes at Norfolk Park continues, 250 metres of twin underground district heating mains are being diverted on the Gleesons site adjacent to Park Grange Road. The diversion is being made to make way for the construction of new low-rise housing throughout the area.

The diversion work is taking place in line with the construction process of the housing. Phase I of the project is underway. Phase II looks set to take place late 2002 / early 2003.

Enabling works were carried out in late 2001 to allow us to be able to make the diversion without having to disrupt the service to consumers on the network. Work is also taking place to prepare a connection to a new school that will become an integral part of the new community in Norfolk Park.

If you have a story that you would like us to include please contact Lisa Came on: 0114 2724 278 or email: lcame@onyxgroup.co.uk

Onyx Sheffield Limited
District Energy Division
2 Sheffield Science Park
Howard Street
Sheffield S1 2LX
Telephone: 0114 272 4278
Fax: 0114 272 0685
E-mail: districtenergy@onyxgroup.co.uk
Web: www.greenenergy.co.uk