

a new name
a common aim



In November 2005 the parent company of Onyx, Veolia Environnement, brought together its four divisions; waste management, transport, water and energy under one single brand name: Veolia. As part of this initiative Onyx has been re-named Veolia Environmental Services.

Veolia is the only company in the world that operates across the entire range of environmental services. The name change reinforces Veolia's corporate identity and reputation and allows the company to build strong and sustainable synergies between all Veolia divisions in the United Kingdom and worldwide.

Martin Simpson, Managing Director, Sheffield said: "Moving away from the established Onyx brand name and its well earned reputation will be a challenge. However we are confident that our new identity will help us to build a strong, sustainable brand that is instantly recognisable throughout the United Kingdom and the world."

"warm and welcoming" at Weston Park Museum

Sheffield's treasured Weston Park Museum has been at the cultural heart of the city for more than 100 years. Since March 2003 the listed building has been undergoing a massive £17.3m refurbishment and Sheffield Galleries and Museums Trust are promising a "...warm and welcoming place – a centre of life that will stimulate the inquisitive mind and fingers of all ages." District heating will help to put the warm into the welcome when visitors come through the doors of the museum later this year.

With the district heating infrastructure already in the area, there was an opportunity for the Sheffield Galleries and Museums Trust and the Consulting Engineers Arup to utilise the network to save plant space and eliminate the need for a flue on the listed building. Both organisations have used district heating in other developments so were familiar with the benefits it could provide. Despite challenging design constraints the network has provided a viable and reliable heat source.

Craig Wootton, Engineering Consultant from Arup, comments: "Arup is familiar

with arrangements for district heating connections. We have used the system in many prestigious developments in Sheffield. Our in-house energy and utilities group provides support and analysis to ensure that we are providing the best solution. On the museum connection we worked very closely with the district heating engineering team to overcome many challenging logistical issues such as: finding a suitable connection point into the building without hitting bedrock, providing a feasible route through already congested plant areas and being sympathetic to the sensitive nature of the site."

Peter Mildenstein, District Energy Manger for Veolia Environmental Services, said: "We were delighted to connect Weston Park Museum. It is very nice to know that existing customers want more from district heating. Working with Arup to find the best solution for the building and the comfort of the end user, we have ensured that Sheffield Galleries and Museums Trust will have a modern and efficient heating system to rely on when the new building opens."



and finally...

Reduce waste - get this newsletter electronically. Contact us on sheffieldenquiries@veolia.co.uk with your email address and the words 'Electronic District Energy Newsletter' as the subject and we will add you to our electronic mailing list.

questions and ideas

Your opinion counts. Tell us what you think of this newsletter and send us any ideas you have for stories and features. Email your comments to districtenergy@veolia.co.uk or telephone **0114 228 3680**

Printed on paper that is 50% recycled, 50% sourced from sustainable forests and totally chlorine free.

Veolia Environmental Services
Lumley Street
Sheffield S4 7ZJ
Tel: 0114 228 3680
Fax: 0114 228 3681
districtenergy@veolia.co.uk

www.onyxsheffield.co.uk

© Veolia Environmental Services 2006

DISTRICT ENERGY: news

Issue 7 Summer 2006

WASTE TO ENERGY a solution for the future



environmental programmes running in Sweden including many commercial energy projects that use locally available resources to generate viable and environmentally sustainable energy from waste and biomass.

Sweden operates 29 'waste-to-energy' plants incinerating more than 3.1 million tonnes of waste per year and generating over 9 billion kilowatt hours of energy. The largest proportion of this is thermal energy used in district heating networks across the country but the remainder is power production.

District heating and electricity generation from waste, similar to the systems in Sweden and in Sheffield, are to be heralded as the way forward in the UK.

Ministers are expected to back an increase in energy from waste in the UK as a solution for two environmental problems. Turning waste into energy reduces the amount of waste going to landfill, saving valuable space and reducing methane emissions. It is also seen as a solution for securing energy supply and reducing our reliance on fossil fuel.

If the plan is given the go ahead, energy from waste could account for up to 25% of the waste stream. Currently it accounts for

only 9%. This will go hand in hand with encouraging waste minimisation and recycling to tackle the growing waste problem. Targets for waste to be recycled and composted are also set to rise.

An increase in waste to energy would also improve the security of our energy supply as reliance on foreign fuel producers would decrease. In addition, greenhouse gas emissions could be reduced.

Sweden has already announced that by 2020 it aims to no longer use oil for energy. The country was recently ranked number one with regards to environmental protection at the recent World Economic Forum in Davos. There are numerous

THIS ISSUE...

A NEW NAME A COMMON AIM



VEOLIA
ENVIRONMENTAL
SERVICES

latest news

new energy recovery facility powering Sheffield's DH Network



Sheffield's new Energy Recovery Facility (ERF) is now complete and providing heat for Sheffield's growing district heating network. Waste was first received at the new facility at the end of 2005 and heat was first exported for district heating in December last year.

Not only is the new facility more efficient and cleaner, it generates more energy for heat and electricity production. This reduces the need for fossil fuel burn and allows more buildings to be connected to the network.

Commissioning was completed and the facility handed over in April. An artist is currently working on the design of a lighting scheme for the building exterior which is due to be completed in the summer.

The old energy recovery facility is no longer in operation and will be demolished by the Autumn. When the site is clear of the old facility there will be an official opening ceremony. Guests at the ceremony will be able to see how waste is used to generate energy for buildings connected to the district heating network and for the National Grid.

remote reading for detailed data

Customers connected to the district heating network will soon benefit from detailed consumption profiles. New radio transmitter equipment has been installed in customer plant rooms and at the energy recovery facility on Bernard Road. This will enable meters to be read remotely and more frequently to provide detailed consumption data to the 141 buildings connected to the district heating network. Peter Mildenstein, District Energy Manager, says: "The new equipment we have

installed will be a huge benefit to both our customers and the company. We will be able to take accurate readings without requiring access to plant rooms allowing for data to be collected more frequently. Not only will the billing process be more efficient, more data can be made available to customers to allow them to manage their energy more effectively." The first meters were read remotely at the end of March 2006.

customer case study

Sheffield Theatres - The Green Room is not the only green thing at Sheffield Theatres

In 1991 when Sheffield's Victorian Lyceum theatre was undergoing a £12 million renovation project, Theatre Manager, Chris Reece, took the opportunity to connect the prestigious venue to the new district heating network. One year later he also turned off his gas boilers in the Crucible and connected them to the network. For 15 years Sheffield Theatres has enjoyed a reliable heat source and great customer service. Chris and Alan Watkins, Theatre Maintenance Engineer, tell us more about how each of the theatres was connected and the day to day benefits that they enjoy.

Why did you connect to the district heating network?

CR - We were approached in 1988 to connect the Crucible when the network was expanding through the city. At the time there was still life in the ageing but efficient boiler and we could not justify the connection. We were keen to take advantage of the system as soon as the numbers stacked up. When the Lyceum renovation project was in its infancy we saw this as the perfect opportunity to start using a green energy source. Less than a year later, gas prices started to rise and we had some great data to show how efficient the system at the Lyceum had proved to be. All of this meant that we could now justify turning off the gas boilers in the Crucible to make the connection to district heating.

The green credentials were an important factor in making the connection but it had to be viable and we had to be sure of reliability. Cost, convenience and space were all considered when looking at energy options. District heating fitted our requirements for each building.

Has the connection met your expectations?

AW - Yes, we have had excellent service from the network and the team of engineers operating it. We have had minimal interruptions in supply and plenty of notice for planned maintenance as well as good back up from technical staff. The system is very efficient and the heat exchangers are easy to maintain.

Was the connection process simple?

CR - We were happy with the first connection. When it was time to connect the Crucible we had learnt that good design allowed us to save even more space.

How does district heating compare to other energy sources you have used in the past?

CR - In the first theatre I worked in we had a coke boiler and emergency gas lighting right up to the 1970s. That was hard work!

AW - The heat exchanger is such a simple piece of kit that the maintenance required to keep it at its optimum working condition is minimal. The time and cost required to maintain a boiler would be much more. The local service and back up are all excellent features of district heating.

Have there been any other unexpected benefits from the connections?

CR - When the boilers are removed as part of the future refurbishment of the building we will be using the space available to increase recycling and reduce our waste disposal costs.

What energy management challenges do you have to face at Sheffield Theatres?

CR - I would guess the same as any other organisation. Keeping costs to a minimum and increasing efficiency with our customers' satisfaction in mind. With 235,653 ticket sales for performances across the two venues in 2005, the challenge is to keep the audience happy.

What are your plans for energy provision and management as part of the wider refurbishment of the Crucible next year?

We will continue to use district heating while it remains viable. We will be investing in cooling and in control systems to provide our customers the level of comfort that they expect from a modern building. At the same time we will be improving insulation and looking at the issue of glazing. We will look for financial and environmental savings.

We want to explore the feasibility of utilising the district heating network to provide cooling for the building to get more of the same benefits that we have enjoyed for the last 15 years.



Over the last 15 years the Lyceum and Crucible theatres have prevented around 4,500 tonnes of CO₂ from being released into the atmosphere.