

## **Comet Square Hatfield – delivering a Sustainable Community**

A groundbreaking new development in Hatfield demonstrates how practical measures can be taken to achieve the environmental and sustainability targets that have recently been discussed at Gleneagles.

Lots has been spoken about carbon savings and sustainable communities (and much more has been said at the G8 summit) but little has been done in practice to change how new developments are planned and constructed beyond lip service to “Eco friendly” homes.

The problems of high energy costs and poor environmental performance arise because there are practical limits to the measures that can be taken such as insulation and energy efficient appliances to reduce overall consumption of heat and electricity. The electricity for lights and appliances still comes from the grid and even worse the heating may also be electric. This problem is compounded by the fact that large centralised electricity power stations are very inefficient and only a relatively small proportion of the energy that is burnt actually arrives at the plug.

The Comet Square development that includes 270 dwellings being built by Barratt Homes and a Nursing Home being developed by Sanctuary Housing Association is one of the first developments in the UK to address this issue with on site sustainable generation of heat and electricity (as illustrated by the attached diagram).

It is the first private housing development of this size to commit to using a centralised heat and electricity network powered with on site high efficiency generation.

The technology used will be Combined Heat and Power (“CHP”) whereby an engine is installed to produce the majority of the electricity for the development with the waste heat from this unit fed into the heating/hot water network. This approach overcomes the enormous wastage normally associated with large, inefficient power stations and the huge losses that occur in the National Grid.

The CHP unit is backed up by conventional boilers and the grid, to give a high security of supply, but will provide over 65% of the energy for the development.

Comparing this Sustainable Community to an electrically heated development delivers an annual carbon saving of 1,500 tons which is equivalent to a wind turbine 95m high or the same carbon dioxide as 1.5 million people exhale in one day (for an alternative solution with individual condensing boilers the annual savings of carbon would still be 230 tonnes).

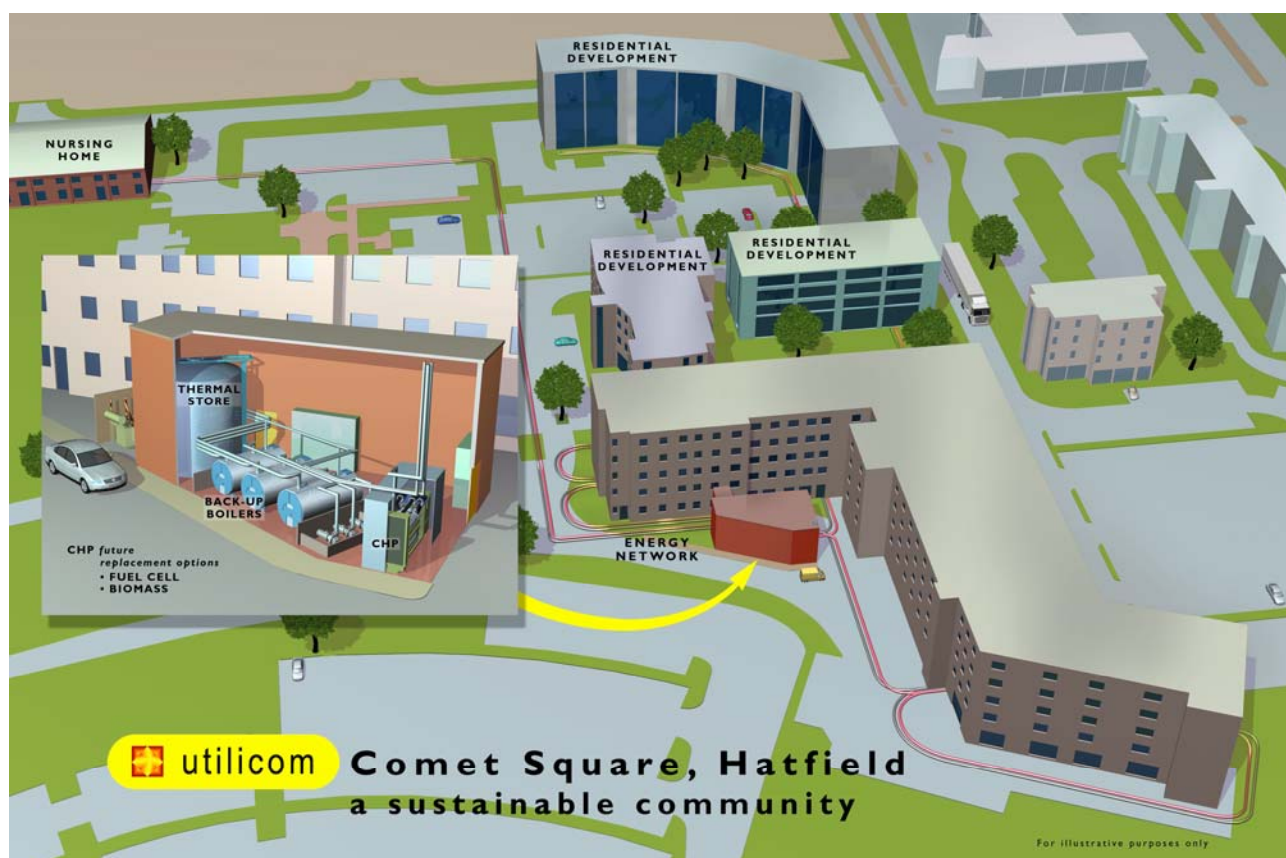
The innovation doesn't stop with gas fired CHP, as Simon Woodward Chief Executive of Utilicom explains, “by implementing centralised generation the development is truly future proofed, this unit could then be removed and replaced with a number of different forms of sustainable and even renewable generation as these technologies mature in terms of capital cost and application to dense urban development including:

- Fuel cells
- Anaerobic digestion
- Biomass”

Phil Jones, Technical Director of Barratt North London, said, “we are delighted to be a involved in such a sustainable development which illustrates Barratt Homes commitment to continual innovation”.

Keith Jackson, Head of Project Management at Sanctuary Housing Association said: “We need a heating system that not only has the power potential required for our homes but can also improve energy efficiency. This innovative design manages to achieve all this and will allow us to see cost savings in our long term running costs.”

Simon Woodward, Chief Executive of Utilicom, said that “we were delighted to sign this ground breaking contract which leads the market in the field of developing truly Sustainable Communities, and most importantly has immense potential for replication across the UK. If such an approach was adopted for only 2% of all new build the carbon savings would be in the region of 15,000 tons per annum and be the equivalent of around 20 acres of wind turbines”



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*Notes for Editors*

About Utilicom

*Utilicom are the market leaders in the development and operation of district energy schemes, delivering heating, electricity and cooling supplies to over ten thousand householders and commercial properties across the UK.*

*Utilicom has been supplying these services for 25 years across the UK, together with operation and maintenance of Building Services Plant and Controls, Contract Energy Management and Engineering Consultancy*

*Other examples of district energy schemes developed and operated by Utilicom include the:*

- *Southampton District Energy Scheme, which supplies over 40 major consumers and hundreds of domestic consumers via a network of over 11 km of heating & cooling pipes around the City Centre, making it the largest commercially developed district energy scheme in the UK. This scheme uniquely incorporates the UK's only geothermal resource, utilising a well drilled 1.7 km beneath the centre of Southampton*
- *University of London CHP schemes incorporating over 4.5MW of CHP and delivering £3.5M of energy to colleges of the University of London, including the entire University College London main campus site.*

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