

Rocks Green, Ludlow : Biomass community heating serving 91 houses



SOCIAL HOUSING



South Shropshire Housing is an independent not for profit business, which provides high quality affordable social housing in the South Shropshire area.



|                       |   |
|-----------------------|---|
| <b>Client</b>         | South Shropshire Housing Association  |
| <b>Application</b>    | New build district heating scheme, 91 houses in all   |
| <b>Solution</b>       | A new build energy centre including two wood chip boilers, along with standby / peak oil boilers.<br>1200m of heat mains installed across the estate                |
| <b>Boiler type</b>    | Two KWB TDS Powerfire 150kW boilers   |
| <b>Fuel reception</b> | Twin ground level adjacent stores constructed on site, are fitted with rotary arm fuel extractors. Each store has a fixed connection to allow for blown deliveries. |
| <b>Fuel supply</b>    | The boilers use c. 300 tonnes of locally sourced seasoned wood chip to supply c. 900,000 kWh of renewable biomass heat and hot water to the estate each year.       |
| <b>CO2 saving</b>     | 150 tonnes per annum  |
| <b>Start-up</b>       | December 2008   |



Rocks Green biomass energy centre showing the fuel reception connection

## Project history

A development of 91 new affordable homes at Ludlow was commissioned by the South Shropshire Housing Association to meet an environmental rating of 'Excellent' under the Eco Homes rating system.

While mains gas was available, it was decided to avoid the connection charge and distribution costs by omitting gas from the site. A biomass community heating district heating scheme was deemed the lowest cost way to achieve carbon reductions by the client's engineering consultants Arup.

## Design, installation and operation

The Association and Econergy worked together to arrive at an acceptable biomass district heating scheme, that would both meet the carbon reduction targets and the budget.

Normally standard radiators would have been used, but the Association opted to use underfloor heating, reducing the size of the heat mains required for the project. Underfloor heating provides better flexibility to the residents, as there is no loss of wall space in the rooms.

Each dwelling is provided with a heat interface unit containing a heat meter, heat exchanger and pressure balancing valves. The Housing Association have developed an energy contract through its subsidiary, Total Response Limited. Heat meter data is collected wirelessly allowing them to charge the residents for heat used.

Around 1200m of twin underground pre-insulated plastic heat mains was installed.

A central energy system avoids annual servicing for each dwelling, eliminating potential access issues.

## Award winning project

Rocks Green won Inside Housing magazines 'Most Sustainable Large Social Housing Project of the Year' in 2009



KWB TDS Powerfire boilers in plant room



District heat mains being installed

## Similar case studies:

|                             |  |
|-----------------------------|--|
| <b>Greenland Road</b>       | Community heating, 380 flats<br>Sheffield          |
| <b>Sheffield Road Flats</b> | Community heating, 166 flats<br>Barnsley           |
| <b>Carwood Close</b>        | Community district heating, 97 houses<br>Sheffield |
| <b>Callow Mount</b>         | Community heating, 296 flats<br>Sheffield          |

## Contact details



### Econergy Limited

Unit 8 & 9, St Georges Tower, Hatley St George, Sandy, Beds, SG19 3SH

Tel: 0870 0545 554

Email: sales@econergy.ltd.uk

Web: www.econergy.ltd.uk