

# BEST - Shefford, Bedfordshire



## LowC deliver new co-location building for Bedfordshire East Schools Trust

This unique building that functions as a co-located nursery and community facility is the centre-piece of Bedfordshire East Schools Trusts (BEST) property portfolio due to the low energy consumption, integrated low carbon technology, the high EPC rating and the quality of workmanship which has been undertaken.

The new £2.2M low-carbon building offers Office Accommodation, Community Facilities, Conference Rooms and a brand new state of the art nursery for infants ranging from 3 months to 5 years old. This truly low carbon building comprises of reduced u-values, rainwater harvesting system and a renewably fuelled combined heat and power (CHP) system.

### Improved Energy Efficiency:

Generating heat and power in one process enables renewable CHP units reach up to 90% efficiency compared with just 30-40% for conventional power generation.



The project, which has been both designed and constructed by LowC Communities Ltd, offers an energy centre that has been designed around reducing the requirement of fossil fuels. The energy centre incorporates a CHP that operates on UK sourced Pure Plant Oil (PPO) derived from rape seed.

From a single renewable fuel input this system can produce 8kW of electricity and 18kW of heat that will be used to cover a high proportion of the buildings energy demands. Furthermore, because of the impressive renewable credentials of the fuel used in this system the Trust will be able to claim double Renewable Obligation Certificates (ROCs) for every kWh of electricity generated. In addition to the financial benefits of the system it has notable environmental benefits – A reduction in the requirement for fossil fuels on site has allowed the project to meet its self imposed operational carbon target of 27kgCO<sub>2</sub>/m<sup>2</sup>/year and also to achieve an Energy Performance Certificate (EPC) rating of 'A'.

The nursery section of the co-location building opened in Feb 2011 - four weeks ahead of schedule. For more information about this project and how you can benefit from CHP please contact Doug Chaplin at [dc@lowc.co.uk](mailto:dc@lowc.co.uk) or call the number below:



### Renewable Energy Supply:

Pure plant oil from pressed and filtered oilseed rape, sourced from a fully accredited UK grower and supplier.

