



## **ENERGY EFFICIENCY AND CARBON CUTTING IN THE WAREHOUSE**

Paul Hardy, Managing Director, Baxi Commercial Division comments, "Warehousing operations, generally being part of large organisations, are most likely to fall within the mandatory CRC (Carbon Reduction Commitment) Energy Efficiency Scheme, which starts in April 2010. This requires qualifying participating organisations to monitor their emissions and purchase allowances to emit Carbon Dioxide. The more CO<sub>2</sub> an organisation emits, the more allowances it will need to purchase so that there is a direct incentive to reduce emissions. Conversely, improved energy efficiency directly correlates with lower running costs through reduced energy bills.

A significant part of the energy consumed by warehouse operations will be through heating. However, by replacing old heating equipment with a new high efficiency system that incorporates Low to Zero Carbon (LZC) technologies, immediate CO<sub>2</sub> and energy usage reductions can be made with directly corresponding cost savings that will, over time, pay back the initial capital outlay. Additional cost saving benefits are available to private organisations through the Enhanced Capital Allowance Scheme, when purchasing energy saving heating equipment that is on the Energy Technology List.

Most warehouses would benefit from the heating and hot water loads being separated with the latter being supplied by a direct gas-fired or, if off-mains, direct oil-fired condensing storage water heater, as the primary heat source. This could be linked into either a solar thermal water heating package or an air source or ground source heat pump that would raise the temperature of the cold water inlet to the primary heat source.

Depending on which solution is most suitable for any particular application, energy savings on water heating in the region of 40% may be achieved for much of the year.

Warehouse applications lend themselves particularly well to these type of LZC solutions as these buildings offer a vast expanse of roof space for solar arrays and there is normally a generous amount of space surrounding the building for outside storage as well as manoeuvring and parking of vehicles where it would be possible to site a heat pump." \ENDS



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AMBIflo Air Source Heat Pump



SOLARflo Solar Thermal Solution

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