

Leicester City Council go green

In 1990, Leicester City became Britain's first 'Environment City' with a little help from Powermaster.



Leicester City Council approached **Powermaster** to help reach their environmental aim of halving the amount of energy consumed in public buildings in Leicester by 2025.

After carrying out a free site survey at one of their central sites - Braunstone Leisure Centre, **Powermaster** recommended that Variable Speed Drives should be installed.

The benefits of fitting Variable Speed Drive controls to electric motors have been well established for many years. It is also well known that many installed motors are actually oversized for the job that they perform.

This means that a fairly modest decrease in motor speed will produce a relatively large reduction in energy consumption, under what is known as the "Cube Law." In other words, reducing the speed of an electric pump motor by just 20% can provide energy savings in the order of 50%.

There is no measurable deterioration of the quality of the pool water, even though the flow rate is now slightly lower.

The variable speed drives have contributed to reducing CO2 emissions through the reduction in electricity consumed. In the first year, 240,000 kWh of electricity was saved. No measurable impact on the water quality in the swimming pool was found.

The total cost of implementing the measure was £20,063. This was funded through the Council's Local Authority Energy Finance (LAEF) scheme. In the first year this produced an energy saving of 240,000 kWh and a cost saving of £18,000, giving a pay-back period of just over one year.

The graph below shows the pink line before our Variable Speed Drives were installed and the blue line shows the electricity consumption after they were installed.

