

'Top 5' Energy Saving Initiatives

Many companies are missing out on the simple changes that can make a big difference when it comes to energy efficiency. There are however many ways in which a business can save energy and cut running costs – here's our top five initiatives:

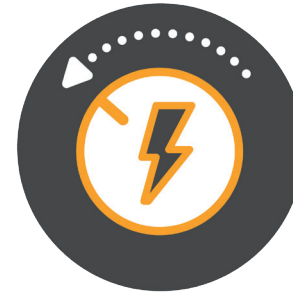


Switch to energy saving LED lighting – in commercial buildings, lighting accounts for circa 30% of total energy usage. Savings of up to 80% can be made by deploying efficient LED lamp technologies. Maintenance costs are also reduced as the products are generally guaranteed maintenance free for up to 10 years by some manufacturers.

High efficiency motors & variable speed drives – electric motors, which tend to be the largest single consumer of electrical energy, can be found everywhere across industry and commerce; in fans, conveyor belts, pumps, lifts and air conditioning to list just a few examples. The energy cost to run a motor for two months can be greater than the initial purchase price. Modern motors, designed to the new mandatory motor efficiency standards IE2, are substantially more efficient; paying back their capital expenditure within the first year generally. Variable speed drives (VSDs) optimise the voltage and frequency supply to the motor to match the speed to the actual load demand, further reducing the energy consumed.



Building controls – the three basic functions of a Building Energy Management System (BEMS) are improving plant control, monitoring energy usage and optimising plant operating times. Savings of up to 30% can be achieved by installing and maintaining an effective BEMS. Some of the most simple energy savings can be made through managing BEMS time clock schedules, to ensure plant is not operating outside normal hours of work.



Supply voltage optimisation – most modern equipment is designed to operate at a voltage of 400/230V however, the UK electricity supply averages over 420/240V, or higher in many cases. Optimising supply voltage to 225V or 220V can save anything from 5-15% in electricity consumption. Where voltage optimisation is not feasible, low and no cost improvements can still be achieved by tapping down transformers or replacing old transformers where the electricity supply enters a building

Conduct an energy audit – evaluating the performance of your building is the most comprehensive method of assessing how the building actually functions; not just today, but also in the years ahead. By undertaking this type of audit you can identify the measures that will re-balance and maximise your building's overall performance, resulting in reduced energy consumption and associated running costs.

