

Lighting Energy Conservation

It is not untypical for lights to be left switched on in working areas when these areas are unoccupied. This becomes more of a problem if lights are left on at nights or at weekends. Perhaps more of an issue, but less thought about, are areas such as plant rooms, store cupboards, toilets, contractor's stores and welfare facilities.

Typically, for a single contractor's container, if the lights are left on for 10 hours per day where actual required usage is only two hours then the potential energy saving is approx £92/year. On a large construction project or within a permanent building these savings can be considerable and as energy prices increase, so do the potential savings.

However, the problem often cannot be solved by asking people to switch off lights when not in use and so we have moved to a physical solution. Depending on the facility a number of options can be designed-in. For example: -

- manually initiated timed operation of lighting.
- microwave motion or passive infra-red sensors.

Timed Switch



Ceiling Mounted Motion Detectors



Benefits

- lighting is only illuminated as necessary, minimizing energy consumption;
- operation is appropriate to the room usage and convenient for the occupants, ensuring that energy saving benefits are not lost through misuse.
- Environmental benefits
- Fire risk from fittings being left on in unoccupied areas
- Reduced maintenance (and replacement) of light fittings due to lower usage

Be Aware...

- Initial outlay is the main stumbling block. It is advisable to calculate approximate payback periods. Even for small areas these are typically less than one year. For example, the container example given above, if fitted with a motion detector gave a payback period of 10 months. Projects lasting longer than this would be saving money and benefiting the environment. For permanent buildings the pay back periods may be similar but the long term savings are ongoing.

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