

LEISURE CENTRE



CORNWALL COUNCIL, PENRITH LIGHTING UPGRADE WITH CONTROLS CASE STUDY

Working in Partnership
with your Local Authority



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BACKGROUND

The emergency lighting in the sports hall gallery area had failed its annual 3 hour duration test and required replacement. It has always been recognised that this was a low used area of space, occasionally used as a route to access the plant room and rear fire escape, however the existing lights were on all day due to lux requirements in the PFI contract and because the light switch was located behind reception.

DESCRIPTION

The 16 2D 28W fixtures were replaced with a 17W LED replacement which had an integrated microwave occupancy sensor to switch the light off after 90 seconds of no detected movement, this is demonstrated in the video (right).

Replacement fittings were specified and fitted by the local electrical contractor. This involved replacing the entire fitting and replacing with a newly specified fitting rather than trying to retrofit into the old housing, which after 13 years were looking quite tired.

The project cost £562 and was funded through the maintenance budget to be completed in two stages. The first stage was the 6 emergency lights which had failed the duration test and the second stage was the remaining 10 standard fittings. The plan was to initially spread over two months but due to the benefits, savings and aesthetics, this was brought forward and completed within the same month.

IMPACT AND BENEFITS

- 2500 kWh saving / year (98% reduction from these lamps)
- 762 kg CO₂ reduction/ year
- £330 saving / year
- 1.7 year payback
- Increased lifetime of lamps and reduced maintenance

LESSONS LEARNT

- Occupancy controls alone are responsible for 60% of the energy savings on this project due to reduced hours from 108 hours to 2 hours per week (which was still deemed by site as an overestimate for how often this area is used) and 40% from the lamp upgrade itself. This demonstrates the role controls have to play in reducing the cost associated with lighting within your leisure centre.
- Like for like isn't always best. Always replace with the most efficient version.