



# Case Study

## ENERGY

## PRINCESS ALEXANDRA HOSPITAL, HARLOW

### Conversion to hospital-wide LED lighting

- The Princess Alexandra NHS Trust Hospital in Harlow, Essex, is a 489 bed District General Hospital providing a comprehensive range of acute and specialist services including A & E to people in West Essex and East Hertfordshire.



- Lighting equated to approximately 45% of the monthly utility bill.
- The hospital is implementing the first full LED conversion in a UK hospital, covering Main Corridors, Wards, Lifts and even operating theatres.

#### How has the issue been addressed?

After having replaced lighting in the hospital with LED lighting, the Trust turned its focus to the car park. The ageing T bar twin fittings were replaced with Photocell controlled Wobbegong LED Car Park Lights, offering huge savings and massively increased light levels delivering CCTV preferential 5000k.

From trials the Trust has installed several lights and has benefited from a significant drop in car crime to zero in the areas already converted with Armadillo LED. Other areas that have LED lighting include emergency light fittings, resulting in increased battery life, from 3 to 7 hours and reduced maintenance costs.

*"Energy is very important to us. The more efficient things are the more money the trust saves and that way we can spend more on patient care."*

Bill Dickson  
Environment Manager

## Carbon and financial savings

The Trust enjoyed an instant 83% and £80,000 saving just for swapping out their T8 tubes for Armadillo Barracuda LED tubes and fittings made specifically for the NHS.

Where the fitting and the tubes were replaced, the payback period was 2.2 years.

Where only tubes were replaced the payback is 1.8 years.

The hospital is currently looking at microwave sensors for the corridors to further increase the energy savings and several are on trial.

**One of Armadillo LED's lights has been on test 24 hours a day for three and a half years, and it's still running today. It's in one of the store rooms. The light was put in and the switch was taken away. It's still running perfectly, and that was a sign to the Trust that the LED lights were worth installing.**

## Contact details

- Bill Dickson  
Environment Manager  
Princess Alexandra Hospital  
Hamstel Road  
Harlow  
CM20 1QX

Tel: 01279 444 455

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- armadilloLED – Evolution In Lighting  
0845 060 4000  
01371 87 69 69  
Fax. 0845 060 4001  
Intl. +44 1371 87 54 37  
[sales@armark.com](mailto:sales@armark.com)  
[www.armadilloLED.com](http://www.armadilloLED.com)  
Bigods Hall | Bigods Lane | Great  
Dunmow | Essex | CM6 3BE |  
England



## To summarise

The Princess Alexandra Hospital replaced existing lighting fittings at the hospital with very high efficient and very long lasting LED lighting equivalents.

The aims of the Project were to:

- Save energy;
- Reduce hospital revenue costs;
- Lower carbon emissions;
- Reduce maintenance costs associated.

LED lighting has:

- Delivered payback on investment assessed on the monetary value of the energy saved within 3 years;
- Maintained or improved existing light levels;
- Reduced the cost of maintenance of hospital lights;
- Reduced energy consumption;
- Reduced carbon dioxide emissions;
- Reduced failures and provided a more reliable service.