



Wembley Stadium CRC Energy Efficiency Case Study

Wembley Vision

As a world-class venue with over 2million visitors per annum, Wembley Stadium has significant operational and sustainability impacts. However, as part of our comprehensive sustainability strategy, our Green Team has implemented an environmental management system (EMS) to manage these impacts and drive efficiencies in energy, waste, water, transport and sustainable procurement.

We strive to be a leader in environmental sustainability by:

- ✓ Continuing to monitor and improve our environmental performance
- ✓ Taking steps to continually reduce our carbon footprint
- ✓ Working with our partners and suppliers to achieve best environmental practice
- ✓ Communicating our environmental goals and achievements to our staff, visitors and other stakeholders
- ✓ Integrating sustainability across all business activities, including budgets and annual reporting
- ✓ Adhering to the sustainability principles of integrity, inclusivity, transparency and stewardship.

"We (Wembley Stadium) are committed to managing the environmental impacts of our operations. By identifying, as part of our environmental management system, how activities can impact upon the environment and establishing objectives, targets and action plans we aim to maximise our positive corporate commitments to secure continual improvement in environmental performance and to prevent pollution from our activities"

- Roger Maslin, Managing Director Wembley National Stadium Limited

Top 5% position in the CRC League Table

Wembley Stadium was placed in the top 5% in the 2010/11 CRC¹ Performance League Table, coming 102nd out of 2102 companies. This top 5% position was achieved by completing the early action metrics including early Certification to the Carbon Trust Standard and the installation of half-hourly meters (AMR²) to the incoming gas supply. The Stadium will continue to implement measures to reduce energy consumption year on year to maintain a high ranking in the CRC league table.

¹ Carbon Reduction Commitment Energy Efficiency Scheme

² Automatic Meter Reading

Electricity Reduction at Wembley Stadium

The new Wembley Stadium has reduced energy (electricity) consumption year on year since opening. The annual percentage energy savings are shown below. The total reduction in 2011 energy consumption based on 2007 figures is 28%. Unusually for an organisation of Wembley's size, energy savings have been achieved through improved management rather than significant investment in new technologies. Some initiatives are detailed in the sections below.

Year	Annual Saving (in comparison to the previous year)
2008	17.3%
2009	4.4%
2010	2.6%
2011	7.2%

Lighting

The vast majority of the lighting at Wembley Stadium is fully controlled by a centrally operated lighting control system. By creating stricter guidelines for lighting requests by internal and external stakeholders, electricity has been saved in the following ways:

- ✓ Placing a requirement on the cleaning contractor to issue a schedule of cleaning around the Stadium in advance so the lighting is scheduled to be switched on in certain areas for a set length of time.
- ✓ The catering contractor has to submit lighting requests with start and finish time for many of the areas required across the Stadium.
- ✓ The lighting requirements for the Stadium Tours have been refined.
- ✓ PIR³ occupancy detection has been installed in all main office areas across the Stadium.
- ✓ Working with Brent Council, emergency lighting has been reduced on event-day egress staircases on non-event days.
- ✓ Lighting controls for the Stadium are monitored from offsite locations allowing unnecessary lights to be switched off at any time.
- ✓ The security team have received training on the lighting control system and have been briefed on how to action lighting requests.

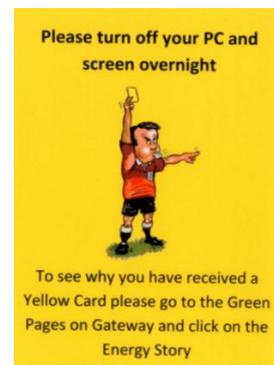
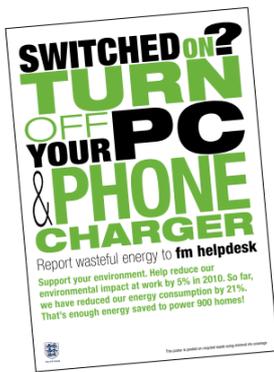
Lighting upgrades have also contributed to energy savings:

- ✓ Lighting in 25 lift cars has been upgraded from 20 Watt Halogen lamps to 9 Watt LED lamps. These lights are on 24 hours a day so the change of lamp has had maximum effect; 19,272 kWh per year have been saved through this initiative.

³ PIR: Passive Infra-Red

Staff Engagement: Energy Referee Campaign

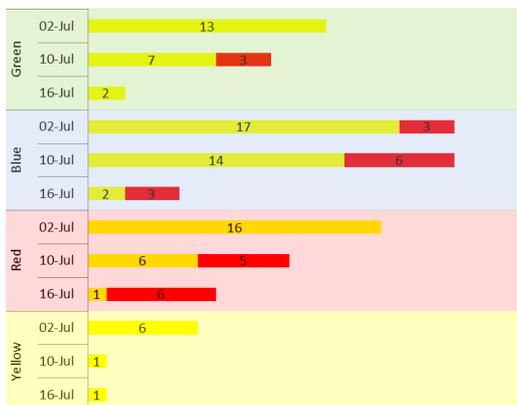
The ongoing Energy Referee awareness campaign has been run for staff at Wembley Stadium for the past two years. Initially a poster campaign titled "Switched on to switching off" (see the poster below). The Energy Referee is a fun way to engage with all members of staff to ensure they switch off their computers, monitors and laptops off at night as well as unplugging phone chargers and similar items. During Wembley's annual Green Week, the Energy Referee visits each of the 500 desks in the offices in the evening and issues a yellow card for a first time offence of e.g. leaving a monitor switched on, and a red card for a second offence. Details of the campaign were provided on the Green Pages on the staff intranet and the Energy Ref personally emails all staff who received a red card.



The results as shown below were grouped by coloured quadrant and advertised on the intranet and on a poster in each staff kitchen at the end of each week. By publicising the results in this way, competition was created between the quadrants to see which quad could improve the most. The use of the leagues tables encouraged competition and resulted in improvements.

Each time the campaign has been run there have been improvements week on week and it has reminded staff how important their contributions are to energy saving, as well as helping to change behaviour at home. Automatic switch-off options are being considered, although these do not have the benefit of behaviour change.

Yellow and Red Cards
2010



Yellow and Red Cards
2011

