



University of Central Lancashire



# CARBON MANAGEMENT PLAN

2015/2016 Update

# HEADLINE FIGURES

The HESA submission for 2014/15 shows the following changes in our absolute carbon emissions based on 2013/14 levels:

- Scope 1 and 2 carbon emissions have increased by 0.66%**
- Scope 3 carbon emissions from water supply have fallen 17.24%**
- Scope 3 emissions from wastewater treatment have fallen 13.77%**



# 2015/16 PROJECTS

We have progressed with our programme of replacing existing lighting with LEDs and installing lighting controls. This year we have completed the following lighting upgrades:

## Media Factory

The corridor lighting in Media Factory was upgraded to LED with an expected electricity saving of 79%. This is an expected annual carbon saving of **41,124** kg CO<sub>2</sub>e. Lighting controls were also installed which will increase the savings further.

## Eden Halls of residence

This project was completed in December 2015 and 80 corridor lights were replaced with LED with motion sensor controls. Electricity consumption in these halls of residence has fallen 26% since the installation of these lights with an expected carbon saving of **13,259** kg CO<sub>2</sub>e per year.

## Student Union Opportunities Centre

This project was completed in December 2015, all existing lighting (36 lamps) was replaced with LED. The existing lighting was dull and inefficient and no longer suitable for the space. The carbon saving from these lights is expected to be around **3,183** kg CO<sub>2</sub>e per year.





### **Harrington Building**

All existing lighting in the lecture theatre was replaced with LED and lighting controls were fitted. All fittings are now dimmable and are on absence detection. The carbon savings of these lights will be monitored and evaluated.

### **Harrington teaching rooms HA142 and HA142A**

The lighting in these rooms was upgraded to LED in February 2016. The energy saving is 75% and the expected carbon saving is **701** kg CO<sub>2</sub>e per year.

### **Maudland building**

The lighting in the corridors and staircases in Maudland was upgraded to fully dimmable LED. The expected energy saving is 41% and the expected carbon saving is **4,501** kg CO<sub>2</sub>e per year.

### **Adelphi building**

In March 2016 we replaced the existing lighting around the conference room with efficient LED lighting. The expected energy saving is 50% with an expected carbon saving of **417** kg CO<sub>2</sub>e per year.



### **All photocopier rooms across campus**

Following a night audit we noted that lights were being left on in photocopier rooms. We have now replaced all lighting with LED and installed motion sensors. The energy saving is expected to be 48% and expected carbon savings of **1,012** kg CO<sub>2</sub>e.

### **53 Degrees**

A full refurbishment of 53 Degrees was undertaken in April 2016 which include upgrading all of the lighting and installing lighting controls. The building has been converted from a nightclub/gig venue into an all-purpose venue so this upgrade was to prevent new emissions rather than reduce current emission levels.

### **Vernon Lecture Theatre**

All lighting in the lecture theatre has been replaced with LED with lighting controls, this project was completed in August 2016 and the savings are being monitored.

## **HVAC controls**

We have also installed inverters and controls to two AHUs in Brook building. The current HVAC system is set by a time clock and FM are reliant on the building users to communicate when the HVAC is required to be on. This means that the HVAC system is running most days between 9am and 5pm unnecessarily. This project was completed August 2016 and the savings are being monitored.

## **Hand dryers**

We replaced 21 inefficient hand dryers in C&T building and 4 in Foster Refectory with more efficient Dyson Airblade V hand dryers. We estimate that this will save **92** kg CO<sub>2</sub>e per year.

# WATER

We worked with the Principal Lab Technician to look at how we can reduce the water consumption in the Maudland labs and decided to replace the existing water stills with six compact water systems. It is estimated that the new systems will save 88% on water consumption or **55.76** kg CO<sub>2</sub>e per year.

We have replaced 11 toilets in Foster building with new Propelair toilets. The new toilets only use 1.5 litres of water per flush compared to 6 litres with the old toilets, a 75% water saving on each flush! We have conservatively estimated a water saving of **150,000** litres per year for these toilets and a carbon saving of **157.8** kg CO<sub>2</sub>e.



The 2016/17 update will be released in August 2017.



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