

# CARBON MANAGEMENT PLAN 2018/2019 Update

## HEADLINE FIGURES

The HESA submission for 2017/18 shows the following changes in our absolute carbon emissions based on 2013/14 levels:

Scope 1 and 2 carbon emissions have fallen by 35.88%

Scope 3 carbon emissions from water supply have fallen 20.16%

Scope 3 emissions from wastewater treatment have fallen 21.85%

In 2013/14, our building intensity was 80.90 kg CO2e/m2, in 2017/18 it has reduced to 51.87 kg CO2e/m2.



### 2018/19 ENERGY REDUCTION PROJECTS

# Lighting upgrades – installing LED and lighting controls

The lighting on Vernon Lower Ground floor was outdated, it is a low footfall area and the lights were always left on, the fittings were upgraded to LED and lighting controls installed to turn lights off when the space is unoccupied.

We expect an annual carbon saving of **630** kg CO2e and an annual reduction in electricity costs of £228.

The lights in Harris ground floor corridors were at the end of their life and looking very discoloured, they have been upgraded to LED and lighting controls installed to turn lights off when the space is unoccupied.

We expect to see an annual carbon saving of 1,249 kg CO2e and a reduction in annual electricity costs of £684





Over summer 2019, the kitchen and lounge areas in the flats in Roeburn Halls of Residence were refurbished and as part of this work we took the opportunity to upgrade the lighting.

The expected annual carbon saving is **1,317** kg CO2e and £684 annual electricity cost reduction.

The kitchens in Greenbank building were undergoing refurbishment so we took the opportunity to upgrade the lighting to LED and install lighting controls to turn lights off when the space is unoccupied. Kitchen lights across campus are frequently left on when the room is unoccupied, and this is an ongoing project to install lighting controls.

The expected annual carbon saving is **151** kg CO2e and £83 annual electricity cost reduction.

### LED Performance Lighting

We continued with the progress made last year by replacing Halogen lighting with LED in performance areas. Halogen lights are being phased out and LED technology is now advanced enough to replace it in performance areas. This year we have upgraded the lighting in Media Factory TV Studio ME039.

We expect to see an annual carbon saving of **25,902** kg CO2e and a reduction in electricity costs of £14,188

#### Hand dryer upgrade

We are upgrading hand dryers from old ineffective ones to the more efficient and effective Dyson models. This year we upgraded 9 hand dryers in Brook Building.

The expected energy saving is  $\mathbf{336}$  kgCO2e, an annual electricity cost reduction of £145

#### **Window Replacements**

Vernon Galleries had old single pane timber framed which were very inefficient and these have been upgraded to more energy efficient double glazed upvc windows improving the experience for staff and students using these rooms. A total of 8 windows were upgraded. A further 14 windows were upgraded in Foster FB068 as part of a larger refurbishment project.

The expected annual carbon saving is 1,757 kg CO2e and an annual heating cost reduction of £400.

### Water Consumption Reduction

To reduce water consumption across campus we have a rolling programme to replace all push and turn taps with automatic sensor taps. This year we have upgraded 8 taps in Vernon Building.

We expect to see annual carbon savings of  $124\ \mbox{kg}$  CO2e and a reduction in water costs of £354.

A survey of all the urinal controls across campus was carried out and 22 new urinal controls have been installed either were the existing units were faulty or where a new need was identified.

We expect to see an annual carbon saving of 2,251 kg CO2e and a reduction in water costs of £6,419

The 2019/20 Carbon Management Plan update is due to be released in September 2020.



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