Case Study

Public Sector Carbon Management – Further Education

£18k
Annual cost saving

109t CO_2
Saved per year

Salford City College

Business focus

Salford City College was established on the 1st of January 2009 as a result of a merger between Eccles, Pendleton and Salford Colleges. The new College is a major employer in the city of Salford with a staff of over 1,000. The mission of the college is "to inspire and empower people to create and take opportunities to enrich lives through learning". The college has also created a partnership with Salford City Council to help develop the climate change strategy – "Creating a City Prepared for the Future".

Participating in the 10-month Carbon Trust Public Sector Carbon Management Programme prepared the college to embed carbon management into their organisation and develop a comprehensive carbon management plan, setting out a roadmap to achieving cost and carbon reduction targets.

Before the three colleges merged, each was independently looking to reduce their carbon footprint. The baseline of the new College was measured to be close to 4,000 tonnes of CO_2 in 2010, with an annual energy bill of some £750,000. The College has identified 1,400 tonnes of CO_2 savings through projects that can be implemented. One such project involves the reduction of lighting across the campus.

Approach

Frontier house, the business arm of Salford City College, was a 25 year old building in need of refurbishment. In 2010 it was re-fitted and refurbished after which staff noticed the extreme brightness of lighting in the building and some complaints were made.

A survey of the building using a hand held light meter identified readings of up to 800lux in office and corridor areas. This is far greater than the required level of lighting by H&S in an office which is between 300 and 500 lux and 100 lux for corridors. As a result this was identified as a good energy reduction opportunity. The first step was to remove 100 of the 420 T5 lights in the 3 floor building over holiday periods – this had no noticeable effect on the quality of lighting in the building.

Six of the 12 lights in the reception area have also since been removed with no obvious impact on staff who work in the area. The removed light fittings are of good quality and are now being used to replace T12 and T8 lights in other areas of the College (Pendleton and Eccles Centres).

Energy and carbon savings

The savings realised from this project will amount to £18,000 per year and the carbon dioxide savings will be 109 tonnes per year. This equates to direct electricity savings of 200,000 kWh every year.

The cost of implementing this work will be £2,000 with an estimated payback period of 0.1 years and the success of the project will result in a 7.9% contribution to the carbon reduction target.

Further lighting work

There are a lot of areas in the College campus well served by natural lighting, yet they also suffer from the over use of electric lighting. A natural progression once this quick win has been realised is to undertake more specific studies regarding the provision and good use of natural lighting and the subsequent re-fit of more appropriate electric lighting where required.

Public Sector Carbon Management Programme

Information about the Carbon Trust's Public Sector Carbon Management Programme is available by emailing publicsector@carbontrust.com or visiting our **website**.

200,000 kWh

Saved across Salford City College campus each year

"Since the merger in 2009 our estate has greatly increased in size. Energy saving projects are important in helping us reduce our energy bills. The lighting reduction project can be rolled out across the estate and is a quick and effective win for us"

John Walls,
Director Estates and Capital