

Sustainability Case Studies

ENERGY MANAGEMENT: REPLACING CAMPUS MFDS



The Challenge: Reducing Energy Use from MFD Printing

As part of a wider review of its Print & Copy service, the University of Aberdeen was keen to replace its existing Multi-Function Devices (MFDs) with new devices that would help deliver a reduction in printing. This initiative provided an opportunity in the summer of 2016 for colleagues in IT Services and the Estates Energy Management team to investigate the possibility of introducing more energy efficient MFD models.

The Solution: Identify Energy Efficient Replacement Models

Following a robust procurement exercise that included both cost-effectiveness and the need for devices that supported the institutional sustainability agenda, Konica Minolta was awarded the MFD contract. Their devices were compatible with the Print & Copy agenda, whilst also operating on average 38% more efficiently in relation to energy consumption than the previous devices.



The Result: Significant Energy and Carbon Savings

Well in excess of 300 campus MFDs were replaced throughout the summer of 2016.

The new models are expected to have a total annual energy consumption of just under 39 MWh, which is around 23 MWh less than the models they replaced.

This energy saving equates to a potential yearly financial saving of around £2000.

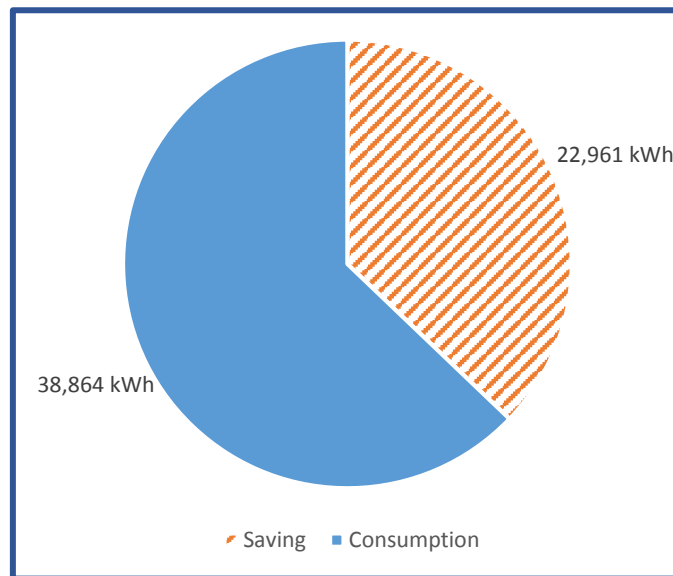


Figure 1: Yearly MFD Electricity Consumption (kWh)

The replacement devices will also secure a reduction in associated carbon dioxide emissions. These emissions are likely to reduce from nearly 28 tonnes to around 17.5 tonnes.

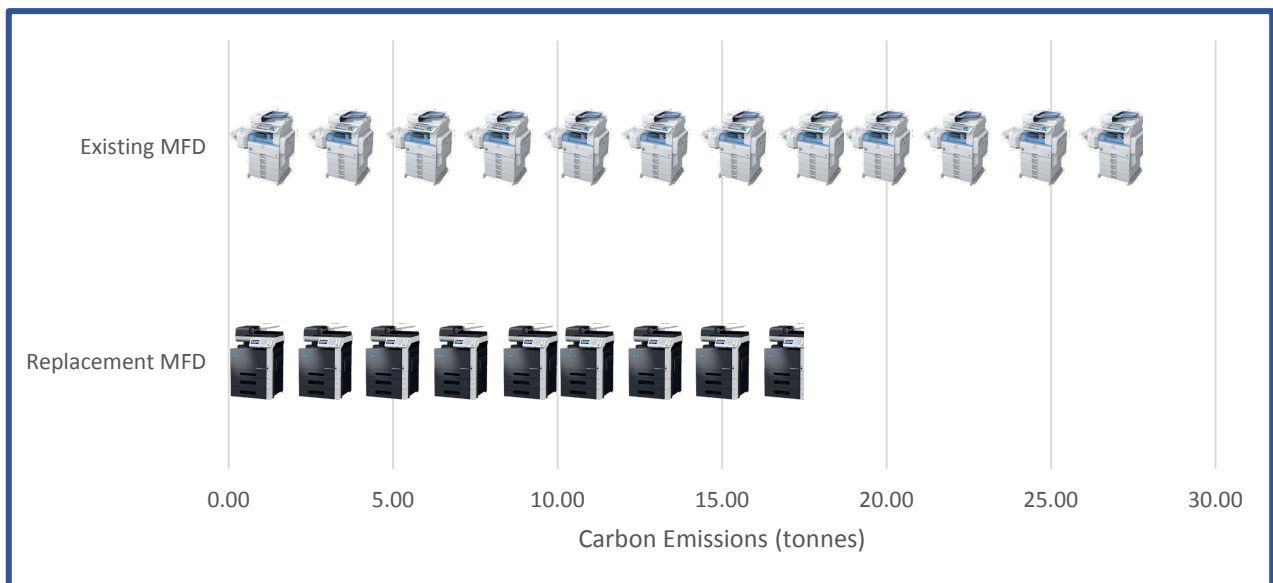


Figure 2: Yearly MFD Carbon Dioxide Emissions (tonnes)

Lessons Learned

- While technology is becoming more and more energy efficient, it shouldn't be taken for granted that replacing equipment will necessarily result in significant energy savings. Care needs to be taken to ensure that appropriate procurement parameters are provided and that energy efficient models compatible with existing infrastructure are identified.
- Further efficiencies around Print & Copy strategy will be made through the gradual rationalisation of desktop printers and a greater emphasis on MFD usage.
- An additional benefit of the new contract is that used toner cartridges are now recycled and picked up by Konica Minolta as part of the contract.