



Case study



amec
foster
wheeler



5 Star efficiency rating

Our 5 star office efficiency programme is now well established throughout the business and 2016 saw our Tees Valley Centre (Darlington, UK) achieve 5 stars, our first office globally to do this.

How did they do it?

Energy use transparency

Monthly usage and cost data is collated by the local facilities management team. Reports show that in 2016 gas usage was reduced by 10% and water by 22%. Electricity consumption has remained consistent despite an increase in occupancy levels. This was achieved through closer monitoring and analysis of usage trends. Close monitoring meant that spikes in usage or unusual trends could be investigated and dealt with accordingly in a timely manner.

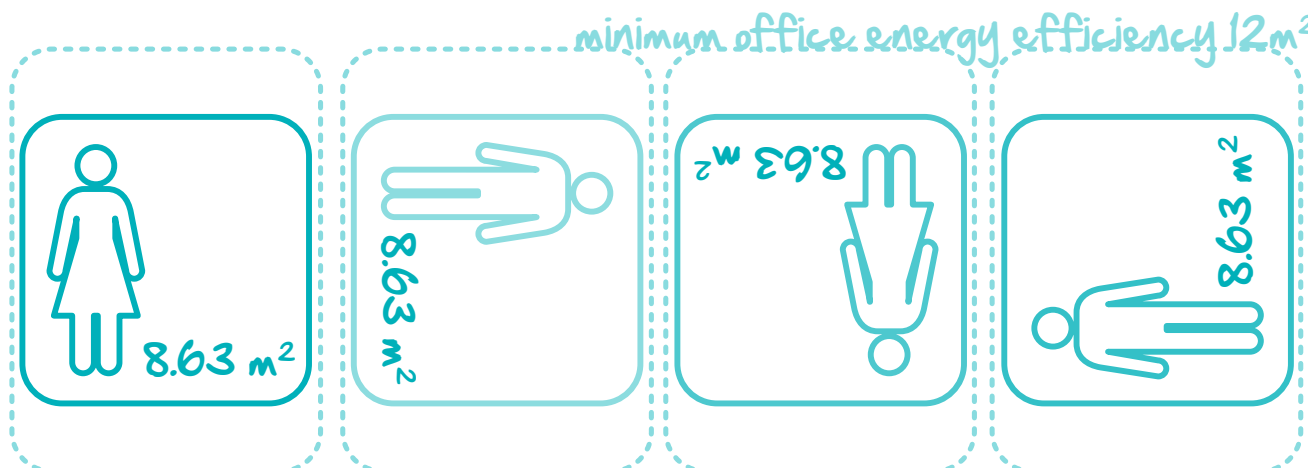
Operations management

The office has a core HVAC system with programmable thermostats and boiler timings and settings which have been reviewed to ensure maximum efficiency. The heating is now switched off at weekends as well as bank holidays and a later start time for post-holiday and weekend heating. The boiler temperatures are constantly reviewed and adjusted on a daily basis as opposed to previous set temperatures. The office is also fitted with movement sensors for lighting in meeting rooms.

All office equipment has an auditable maintenance system, with environmental impact considered as part of the vendor approval questionnaire. Office equipment is set to optimum efficiency levels, for example printers are set to Follow Me printing with default settings set to double sided and black and white as standard, saving on energy and resources.

Efficient occupancy

Occupancy levels in the building are 8.63m² per occupant; the guidelines for an energy efficient office are 12m² per occupant.





5 Star efficiency rating



amec
foster
wheeler

Waste efficiency

Waste to landfill was reduced from 15,584 tons in 2015 to 11,569 tons in 2016, a 25% reduction. All but kitchen waste is currently recycled; the office is now investigating the possibility of introducing an anaerobic digestion system.

The increase in recycling was due in part to our change of staff drink provision from Flavia machines to vending.

Flavia machines	Vending
5,000 waste cartridges to landfill	No waste cartridges
3,000 waste cups to landfill	Cups recycled
25.6p per cup	12.4p per cup

The office also has a blanket ban on individual bins under desks meaning employees have to utilise designated areas, encouraging waste segregation.

Water efficiency

The office cut water consumption in 2016 by 21%. This was achieved due to a number of actions:

- Individuals have the option to use the Facilities Management Helpline or have easy access to the local Facilities Management team to report leaks and dripping taps, allowing repairs to be carried out quickly.
- A maintenance check plan has been put in place to prevent leaks.
- Urinal tank water displacement devices have been installed and urinal flush valves have been reset to a mode that flushes the urinal less frequently using a lower water volume.
- Water meters are read monthly with readings then compared to the same month of the previous year.
- Water-cooled air conditioning units are turned off when not needed.
- Only full loads are permitted in the dishwashers.

Other good practice

- The site has two electric vehicle charging points available for use by both employees and visitors.
- The office utilises an ISO14001 accreditation company for cleaning, ensuring any environmental impacts are minimised.

In 2015 we undertook a series of energy audits throughout the UK in order to meet our obligations under the Energy Saving Opportunity Scheme (ESOS). Throughout 2016 we have been working through the ESOS report implementing the recommendations wherever possible and looking for opportunities for further savings.

Shinfield Park Office, UK

The largest potential savings were at our Shinfield Park office in Reading, UK office. The facilities team based in the office assessed the recommendations made in the ESOS report and also looked at other potential options to increase energy and cost efficiency further. The team also identified a number of other areas that had not been identified in the ESOS report that they felt would improve efficiency.

Office building efficiency

In the office restaurant 12 LED light fittings were installed replacing one hundred and ninety-two traditional bulbs. The team have estimated this will save around £3,000 in energy and around 16 tonnes of carbon. Taking into account the initial costs for equipment and installation, we saw a 100% return on investment within the first three months.





Case study

5 Star efficiency rating

The team also identified that the extractor fan in the kitchen was not linked to the Building Management System (BMS) and, therefore, was operational 24 hours, 365 days a year.

Linking this equipment to the building management system to ensure appropriate scheduling, as well as panel modifications and software updates is expected to result in savings of approximately £10,000 per year.

Efficient occupancy

Due to a reduction in personnel the office space was highly underutilised. Action has been taken to relocate employees into designated areas, ensuring the space is used efficiently. Lighting in unpopulated areas has been turned off and heating settings adjusted to frost control.

All-in-all it is estimated that the actions taken will result in annual savings of around £52,000 and over a 12% reduction in energy usage.



amec
foster
wheeler

AMEASE Water Week 2016

Our colleagues in AMEASE got together in March to raise awareness of the importance of water efficiency, as a means to achieving sustainability for global environmental and health purposes, as well as for economic reasons.

The week was split across three key themes, each with its own set of activities.

Theme	Activity
Water in your community	Yammer discussion; #Blue4Water awareness campaign; 'Lunch and Learns'
Water in your office	'Let's Not Leak Profits' office campaign
Water on your projects	'Water toolbox talks'

AMEASE Water Week 2016 was celebrated by an encouraging number of our locations who provided positive feedback on levels of employee engagement in the event. These included: the UAE, France, India, the UK (AMEASE Centre), Milan, Perth, Philadelphia, Singapore, Spain, South Africa, Switzerland, and Thailand.

Externally, we will continue to support our clients to assess and manage business water risks. This is where Amec Foster Wheeler can make the biggest positive impact through our water experts within the business. Specific information on our water services and projects can be found at amecfw.com/water.



The team in our Singapore office, wearing blue for Water Week

Our colleagues in the Milan office, celebrating Water Week

