

MET OFFICE

Our aim is to be recognised as the best Weather and Climate Change service in the world. The work and research that is central to our organisation, highlights the effects of anthropogenic climate change and the need to mitigate; to be more sustainable.

We're acutely aware of the impacts of our operations, and are committed to meeting our objectives in a sustainable way. We minimise our carbon footprint where possible and aim to achieve neutral, if not net positive, environmental impacts.

We engage with staff, customers, the public and private sectors, to innovate and promote this country's sustainability agenda. We also work closely with the World Meteorological Organisation through their Voluntary Cooperation programme; utilising our knowledge of the climate, to help build sustainable development and education in climate-vulnerable countries, all around the world.

WATER RECAPTURE SCHEME

In 2012/13, we identified gaps in monitoring our water sources and installed a new metering system to allow us to accurately monitor our water consumption. This allowed us to baseline our consumption, at 48530m³ per annum, and set reduction targets. In 13/14 a Business Performance Measure was implemented; 5% mains water reduction over the next FY; equivalent to 2427m³.

To achieve this target, Property Management worked alongside our contractors, G4S, to install a water capture recovery system; reducing mains water volume utilised.

We managed to increase recycled water usage by 47%, and consequently had to build new water tanks to store this additional volume. Simultaneously, we attempted to use our borehole water more efficiently, and reduce discharge and harvested water. This cumulative approach produced an 18.543%, or 8999m³, saving in mains water – equivalent to 3.5 Olympic

swimming pools. Only 11.59% of the mains water used in 13/14 was for potable purposes – the rest was required in the supercomputer cooling system.

Moving into 14/15, we have continued to build upon those successes. Shower head attachments have been fitted to staff leisure facilities; reducing water output by 50%. Pressure reduction valves were fitted to the ground and first floors of HQ, minimising water wastage. Already the first 3 months of this FY have seen a further 21.86% decrease from 13/14, and June 2014 was the first month in which 100% of water used for toilet flushing was recycled.

We have made huge leaps in the last 24 months, increasing our recycled water usage by 180%. We are however, continuing to monitor our water recapture scheme, and hope to see even better results in the near future.

RECYCLING

In 2011, we recycled 74% of our waste. After appointment of a new facilities manager in August 2012, an ambitious target of 80% was set for 2013/14.

We tackled the issue by encouraging 'at source' recycling and targeting staff engagement. At the Annual Met Office Expo in 2012, recycling was given a priority agenda, which resulted in voluntary Staff Recycling Champions increasing from 2, to 28.

After site visits with industrial waste sorters, our 26 waste streams were streamlined into just 10. This simplified the programme for employees, but enabled us to recycle as much material as possible. To then make recycling 'business as usual', our Facilities Manager employed behavioural and psychometric analysis, identifying needs for accurate labelling, and a 'standard' order for recycling bins; no matter where they are found on site.



Plastic Bags



Pens



Cup lids



Cling Film



Clean Food Trays



Bubble Wrap

Note: Please no bottles or contaminated food packaging



Sandwich Containers



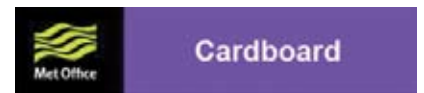
Soup Cups



Yoghurt Pots



Crisp Packets



Cups



Clean Food Packaging



Envelopes



Tetra Pak

Large boxes to be collected by Helpdesk (2050)

In addition to simplifying our everyday office recycling, we have run specific events: In June 2011 staff were encouraged to bring in and recycle any unwanted home electrical items. In January 2013, old paper, files and magazines were 'cleared out', and February 2013 saw old floor tiles and pumps taken to metal recycling centres.

As of June 2014, the Met Office is recycling more than 80% of our waste at source, and the FY 14/15 is set to achieve a figure closer to 85%.

PHOTOVOLTAIC ARRAY

In June 2012, we installed a 1000-panel rooftop solar photovoltaic array at our Exeter HQ. At the time of installation, it was the biggest roof-mounted array of solar panels in Britain.

The panels annually produce ~250MWh of clean electricity, which contribute to the running of our supercomputers housed at HQ. This renewable energy source saves us ~116tCO₂ in emissions and relieves pressure from the National Grid.

A February 2013 DECC publication; "UK Renewable Energy Roadmap" used the Met Office PV array as a case study to be used by other businesses and government departments, as a way to achieve the "solar vision" anticipated for 2020.

POWER USAGE EFFECTIVENESS

In 2009, the Met Office PUE was 2, equating to a Data Centre infrastructure Efficiency (DCiE) of 50%.

Over the last 5 years, we have carried out both, 'quick wins' and major alterations to our engineering systems to improve their efficiency. Employees are encouraged to suggest constructive ways to 'better' our housekeeping practices. We have recently moved to an automated smart-metering system, so we can continuously assess and identify how efficiently our energy is being used.

In March 2014, our PUE was measured at 1.37; an increase in DCiE to 74%. The majority of this change is external to supercomputer energy; a huge achievement.

Currently, a 5 year plan is in place to further reduce our PUE. We propose to replace our existing, ageing chilled water plant for the latest technology, by FY 17/18, to improve the overall efficiency. The new plant would come complete with free cooling and have a coefficient of performance of 8kWt:1kWe, at low loads, compared to the existing of 3kWt:1kWe.

BIO DIVERSITY

We are the only public sector organisation (and

one of only 17 organisations in total) to hold the Wildlife Trust's Biodiversity Benchmark, and have done, since 2011. Our main HQ site has a total of 355 observed species and counting, which includes; slow worms, bats, dragonflies, butterflies, birds and meadow wildflowers.

All staff can engage with our natural surroundings via our biodiversity walk around the grounds, which highlights our wildflower meadow, solitary bee hotel and bee orchids. We are committed to maintaining and improving our natural environment, and work closely with G4S, Devon Garden Services, the Biodiversity Working Group and our dedicated staff volunteers, to enhance and protect the wildlife found at all of our sites.

PROCUREMENT

Our internal 'Environmental and Sustainable Procurement Policy', requires that every purchase completed by the Met Office meets the needs of the environment, economy, society and our people.

The majority of our radar systems were made by Plessey UK, before they dissolved in 1989. In an attempt to gain longevity and continuity for our radar operations, Procurement have worked closely with Radar and IT departments to recover 'obsolete' systems from Indonesia, Botswana, Brazil and many other countries around the world; and then restore them to their former health. FY 13/14 saw Procurement, Finance, Stores and IT all replace paper provisioning with an online system. Utilising technology has improved the efficiency and accuracy of transactions, as well as eradicating paper waste both internally and externally.

SUSTAINABLE COMMUTING

We aim to instil a sustainability agenda within not just our organisation, but also within our staff. We recently initiated a push towards sustainable commuting via; walking, cycling, public transport and car pools.

72 staff have utilised our 'cycle-to work' scheme and 11 'pool bikes' are available to borrow at any time. Our most recent 'bike

count' witnessed 171 bicycles on site - demonstrating our company's environmental ethos resonating throughout the workforce.

VIDEO CONFERENCING

Over the last 3 years we have taken the conscious effort to reduce our emissions produced through business travel; in line with the Government Greening Commitments. Consequently, we have been encouraging all staff to utilise video conferencing facilities, which are available at most of our manned sites; supplied by contractors Questmark.

In the first six months of 2014, 325 meetings were held via video conferencing, between colleagues and domestic customers. This saved a minimum of: 251,300miles, £115000 and 3881 working hours. In carbon terms, this roughly equates to 77tCO₂.

If international travel is included, those figures increase dramatically. In the last 18months we have embraced this technology further and installed 3 new Video Conference facilities in HQ; so as to continue to reduce our carbon emissions and improve our working efficiency.

THE CORE OF THE MET OFFICE

Sustainability is encompassed in our core values; whether that is in science, research, engineering, business travel or otherwise; it is at the heart of what we do. The last 3 years have seen us push boundaries, increase initiatives and cement our role as leaders in this field.

The foreseeable future will be just as exciting, as we continue to inspire, innovate and challenge the concept of sustainability, both within the public sector and further afield. Achieving this award would not prompt us to rest on our laurels, but would instead encourage us to build upon and further our successes.

The Met Office would be incredibly proud to be named "The Most Sustainable Public Sector Organisation in Government" for the second time, and we hope that you will consider doing so.

Waste Audit November 2012 - Floorplate Recycling Figures

Floorplate	Could be recycled in a Month (%)
B2	54
F2	60
D2	64
College	65
DG	69
A1	69
C2	70
D1	70
C1	71
Gym	71
E1	72
Restaurant	72
A2	74
F1	74
B1	75
G2	77
E2	79
G1	81

YEARLY WASTE TOTALS

