

# CAUTION: climate change at work



Dave Reay discusses ways to reduce greenhouse gas emissions at the office.

As I sit here, my knees rammed up against the seat in front of me and the smoke-laden air from the cancer carriage wafting through the doorway, I'm struggling to revel in my climate-aware choice to travel by train. I'm on my way to talk about individual action on climate change in Leipzig. I could have flown down from Edinburgh to Stansted tomorrow morning, caught another flight from there, and so not be here juggling a laptop at all. I wouldn't have to endure a nine-hour journey down south (we're already over an hour and half late), I could eat and drink something nice for dinner and sleep in my own bed. But no. Talk the talk? Then walk the walk (or the aisle).

Air travel, and in particular the short-haul internal flight I would have got tomorrow morning, is a large and rapidly growing source of greenhouse emissions. It's easy to see why: it is invariably much cheaper than rail, and the journey times are shorter.

Jet travel throws up some serious quandaries for the environmentally-aware scientist. Part of our job is to talk to other researchers in our field, present our findings at conferences and collaborate with overseas partners. OK, so some of this can be done by phone or even through virtual conferencing technology, but most still requires air-travel and so a lot of greenhouse gas.

Most of us (hopefully) know that we can reduce our own contribution to global warming through wasting less energy at home, driving a smaller car and recycling more, but how many of us take such climate-awareness to work?

It may be something that we fret over every time we look at our children, but

too often our concerns about climate change are something we keep quiet about around the office water cooler – an embarrassing hobby kept for the evenings and weekends. But not many embarrassing hobbies could help stop famine, the spread of disease, and loss of life on a biblical scale. Knowing that individual action can help to slash emissions from transport and homes, it is worth considering how similar changes could infiltrate our places of work.

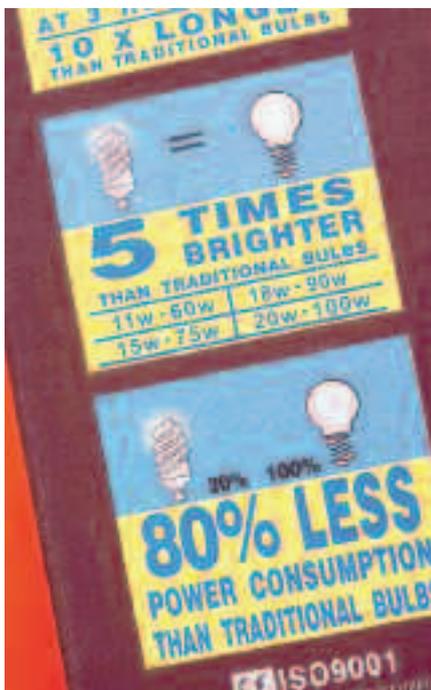
Starting with the type of workplace itself, the news for many of us is pretty

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bad. At the bottom of the emissions league table come places like warehouses, emitting just 4kg per square foot (albeit with a tendency towards a rather large floor space). After

warehouses, schools come in at around 5kg per square foot. Then things start to get much worse. Work in a standard office and every square foot will be emitting about 10kg of greenhouse gas each year. Not to be outdone, our universities emit around 11kg.

The precise breakdown of emissions varies from workplace to workplace but there are some common culprits in each. Firstly, there's temperature control: heating and cooling account for about a third of the average office's electricity use. Walk into many buildings during the heat of the summer and you'll soon find you're shivering as their air-conditioning serves to drop the temperature around your flimsily-clad body to something approaching the inside of a refrigerator. Step out of the biting winds of winter into the same building, and you'll be shedding jackets, scarves and gloves apace as the furnace-like heating makes the winter-time work dress of choice T-shirt



Mark Boulton/Alamy.com

*Climate Change Begins at Home*  
by Dave Reay, costs £16.99 and  
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and shorts. By requesting that the temperature of the building is more appropriately maintained in line with the seasons, and at least going for the open window option (summer) or more clothes option (winter) in our own offices, we can slash the energy wastage and so emissions from this source.

Alongside temperature control, it is the saturation-lighting and myriad office appliances – the printers, photocopiers and faxes (and water coolers) – that account for most of the rest of our energy-use at work. Opt for low energy light bulbs and occupancy detectors and the lighting-based emissions in most offices can be halved at a stroke. For the office appliances, choosing efficient models and ensuring their energy-savings settings are activated can cut emissions by 75%.

Finally, in work there is waste. The standard savings apply for recycling glass, cans and the rest but the really big one for most workplaces is paper. The average office worker gets through 100 sheets of paper a day. The three watch-words: reduce – through double-sided printing, reuse – envelopes and scrap paper, and recycle – keep the waste bins paper-free, can together make a real impact on the number of finely sliced trees your work place gets through each year. Every kilogramme that gets recycled rather than binned, for instance, can save 2kg of greenhouse gas.

For the great and the good at work there are the decisions about the transport they encourage: are there cycle racks and showers? The fleet vehicles they provide: big petrol engines or small hybrid engines? What environmental ethos do they promote: are energy and recycling in the workplace encouraged? And, ultimately, is the building itself designed with energy saving and sustainability in mind?

In tackling greenhouse emissions from businesses, the umbrella organisations we

work for also have a key role to play. NERC is already making progress on this, through its annual environmental costs accounts, which put a price on things like the environmental impacts of our NERC-related travel, energy-use and waste. The Centre for Ecology & Hydrology is gradually replacing its vehicles with lower emission dual-fuel models. NERC offices are recycling more, and new buildings, such as the Welsh Environment Centre, have been designed with energy-saving and sustainability in mind.

Break down all UK greenhouse emissions by end-user and our individual use is stark: a quarter is from our transport, a quarter is from our homes and most of the rest is from our places of work. We each have a choice. Shall we push the world towards the high emissions scenario so far only seen in movies, or help to hold it back to a low emissions scenario, and so try to avoid the most catastrophic effects of climate change. Time to choose.

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