



## Executive Summary

Even if you are not wholly persuaded by the arguments around global climate change, it cannot have escaped your notice that all of the recommended actions to address climate change can translate into very sensible cost-saving business practices. Reducing your carbon footprint can also be seen as reducing your energy and resource usage costs and thereby improving the efficiency and costs of your business. Can you seriously afford to overlook such a commercial advantage?

It is only matter of time before governments and large organisations will be asking suppliers to show evidence that they have effective green strategies. This will require you to identify practical effective steps to not only alter your organisation's behaviour but make considerable long-term cost and efficiency savings for your organisation's accounts too.

Electronic image usage, storage, retrieval and archiving is a very effective strategy to help the environment and your bottom line. As electronic imaging specialists we do not claim that this will save the planet but it must be an essential part of any serious overall drive to reduce the carbon footprint of your business. But businesses need practical steps they can follow. We list 23 helpful actions in this document among which electronic imaging plays an important role.

To make a sustained contribution, create a plan, keep checking your emissions, create a graph, and put it up on the wall, show staff you mean business, and assist them in any ways they can to reduce their personal impact on the environment. Make it happen.



## Making it happen - Reduce your energy and resource costs and contribute to the environment

Does global temperature follow CO2 levels or does global temperature drive CO2 levels? This is a key question at the moment in the global climate change debate. However, even if you are one of that minority of very hardnosed business people who is not persuaded by the arguments around global climate change and its possible effects, it cannot have escaped your notice that all of the recommended actions to address climate change can translate into very sensible cost-saving business practices. Reducing your carbon footprint can be seen as reducing your energy and resource usage costs and thereby improving the efficiency and costs of your business.

Electronic image usage, storage, retrieval and archiving is one very effective strategy to help the environment and your bottom line. However, it is best seen in the overall context of the practical green initiatives businesses can take to reduce energy and resource consumption. It is only a matter of time before governments and large organisations will be asking suppliers to show evidence that they have effective green strategies.

What most businesses want are practical steps? Here are 23 no-nonsense, effective steps to not only alter your organisation's behaviour but make considerable long-term cost and efficiency savings for your organisation's accounts too. As a business person can you seriously afford to pass over this type of advantage?

### 1. Know your current carbon footprint

You need to know where you are starting from. We recommend that you use the environmental calculator to find out your present carbon footprint at:

<http://www.resurgence.org/carboncalculator/index.htm>

Here you will find a full set of environment calculators to allow you to work out your carbon footprint for: Electricity, Gas, Bottled Gas, Oil & Coal, Wood, Car transport, Journey Table for Car, Taxi, Bus, Train and aeroplane, fuel-intensive leisure activities such as motor-boating, jet-skiing, flying and motor racing. Columns are given for petrol, diesel and kerosene (aircraft fuel). Take the totals from all the tables above and enter them in the final table and you have your carbon footprint.

### 2. Know how much it is costing you every time your staff can't find the files they need?

When files or papers are misplaced, misfiled, or leave your building it can cause massive disruption to others. Orders can be delayed, proposals held up, and client services compromised.

Paper records storage occupies significant amounts of floor space. Files are stored in filing cabinet drawers, in boxes being prepared for filing, and in separate piles, awaiting preparation for filing. Space used by these records is a critical business asset and could be used for other needs.

In addition, significant clerical time is spent filing, retrieving and then re-filing documents and files. A large portion of a business employees' time is spent on this task. This problem has been recognised for some time. The International Records Management Trust (1995) has made some interesting estimates:

- ⊙ The cost to maintain a five-drawer file cabinet is \$880 per year.
- ⊙ The cost to support 1 inch of paper documents is \$11 per year.
- ⊙ Three percent of all documents are mis-filed, even with the best records management system.

Weiss(1994) provides some additional insight into the costs to locate documents:

- ⊙ The cost to retrieve a single page document is \$20.
- ⊙ The cost to locate a mis-filed document is \$120.

And here is a more recent view from the UK:

- ⊙ The typical information worker now spends up to a quarter of his or her day searching for the right information to complete a given task.
- ⊙ The average document is copied 19 times and each cost £14 to file.
- ⊙ 7.5% of all documents get lost and 3% of the remainder are misfiled.
- ⊙ It costs £80 to find a misfiled document/£150 to reproduce a lost one.
- ⊙ A 4-drawer filing cabinet costs £17,000 to fill and £1,500 annually to maintain.
- ⊙ People waste six weeks per year trying to find mislabelled, misfiled or misplaced documents.
- ⊙ A USB memory device with one Gigabyte capacity (enough to hold the contents of a well-filled four-drawer filing cabinet), which is small enough to fit on a key-ring, now costs less than £15.

### 3. Know what you can save by storing electronic document usage, sharing archiving and retrieval

Significant savings can be made to an organization's carbon footprint by the use of technology to reduce the number of photocopies, faxes and postage created for internal use documents. Energy Solutions, a charity based in London offering energy efficiency advice to businesses, recently calculated the savings that can be made by using an Intelefile virtual filing cabinet system.

The study reviewed an organisation with a head office and four regional offices, and calculated the carbon footprint created by the electronic equipment both before and after the use of Intelefile. The table below shows the reduction of internal faxing, photocopying and postage for each office:

Daily usage before Intelefile			Daily usage after Intelefile		Intelefile Saving	
Type	Regional Office	Head Office	Regional Office	Head Office	Regional Office	Head Office
Photocopying	50	200	20	75	30	125
Outgoing faxes	20	80	5	40	15	40
Incoming faxes	20	80	10	20	10	60
Outgoing post	30	120	10	5	20	115

The outcome of the review showed an annual saving of 155 Kg of CO2 - the equivalent volume of a double-decker bus. This was achieved by simply reducing the volume of faxing and photocopying internally and between offices by sharing paper documents online. The organisation also saved an estimated 90,000 pages annually from the reduction in photocopying and faxing too.

#### 4. Avoid duplicating your business classification scheme

Organisations can have multiple classification schemes, with the requisite work, meetings, and endless paper trails hanging off each scheme overloading staff time and printers all over the company. They have hierarchies for the website, for the intranet, for a shared drive folder structure, for the disposition/retention schedule, for the FOI publication scheme, for the physical file structure, and everyone has a different structure on their email folders. Senior management needs to set up a single classification scheme based on the functions and activities of the organisation and enforce it.

#### 5. Centralise the printers to one large energy-efficient machine

Having a printer beside every workstation is asking for everything to be printed. Just making it slightly less convenient for staff to print every post-it note they like will prevent much paper, energy loss and noise pollution from browning your work environment. But things need to be thought through to prevent a mutiny.

- (1) Get flashy flat screen monitors so staff don't suffer from eyestrain.
- (2) Give the old monitors and printers to anyone willing to homework (see below)
- (3) Make sure the printer prints double-sided(duplex) and set this as the default. This can halve storage costs as well as paper use.
- (4) Use recycled paper as the default in your printers. If senior management insist on glossy or archival paper, use one of the old printers for this and allow staff to opt for it when printing for clients or perpetuity.

#### 6. Buy Green printers which have:

- **Ultra-Low Power Sleep Mode.** After a short period of idling, systems enter a low-power sleep mode during which they consume just six to eight watts of electricity-significantly less than during normal operation.

- **Quick Start Up.** Warm-up time on modern printers can be nearly 66% faster than competitive systems. This makes the sleep feature invisible to users, so the low-power mode does not get disabled.

- **Fast Duplexing.** All systems operate in duplex mode at 95% to 100% of their rated speed, so users can quickly and easily complete copying jobs using half the paper.

- **Toner Recycling.** This internal process helps improve toner yields, reduce wasted toner and decrease the frequency of cartridge replacements.

- **Sample Mode.** This feature prevents paper waste by allowing you to print one sample copy to check settings prior to printing the entire job.

- **Energy Awards.** Copiers that have earned the Energy Efficiency Award "sleep" or power down when not in use, and use 40% less electricity compared to standard models.

#### 7. Cut off email strings

Have you opened a file to find the content is one long email printed out each time a new voice is added to it? It starts off as one page, then finishes as a fifteen page email string, with another ten pages of disclaimers at the end. Not only is it a waste of paper, it increases the need for storage space exponentially and is a potential liability since people often do not delete internal (what does that stupid cow expect?) discussions before hand when they forward an email externally.

Solving the problem is easy. If you are using Outlook, head to Options/Preferences/Email Options, then after 'When replying to a message:' choose 'Do not include original message'. Do the same for forwards if you're really keen.

#### 8. Consider giving staff a home-working friendly records management system

Our carbon footprint is never so large as that caused by the daily commute of billions of workers from home to work. So creating

a work environment conducive to working from home has huge benefits for the planet, but you are also likely to see happier and more productive workers, a dispersed business continuity risk, and less money spent on office space.

There are some things you'll need to set up, such as the scanning and up-loading to the records management system all incoming mail, a Virtual Private Network (VPN) so staff can access their information needs records from home, and performance management contracts so staff have work to complete and targets to meet.

## 9. **Work towards EDRM**

We've all been dreaming about paperless offices and of having all records up and running on the servers but, according to the latest AIM study, this is a pipe-dream for most of us. Cost, culture and complications all contribute to the lack of EDRMS implementation, but there are ways to move your organisation towards getting it. Firstly, get that single business classification scheme up and running; it will make it easier to transfer the records across. Second, convert all paper files into electronic form, where they can be managed automatically and accessed by anyone connected to the network. This is faster, safer – and saves on floor space. Existing paper files can also be pulled out of their cabinets and scanned for storage in electronic form. The paper can then be sent for recycling, and the empty cabinets disposed of. All future incoming paper mail can be scanned into the document management system. Much of the paper can be destroyed immediately, provided you have the right processes and technology in place to safeguard the image of the original document. Ensure they can be organised for easy retrieval. With the right software, they can be filed away in a range of ways.

If you want cheap and effective solution consider our Intelefile system at [www.intelefile.com](http://www.intelefile.com) with a simple pay as you go pricing model.

## 10. **The Green travel and transport scheme**

Encourage staff to car share and travel by public transport where possible. Staff with company cars are encouraged to opt for 'environmentally-friendly' vehicles e.g. hybrids or powered by alternative fuels.

## 11. **Know your myths from your facts - Common Computing Myths**

### **I should never turn off my computer**

No harm will come from shutting your computer down when it is not needed. Manufacturers report that turning a computer on and off will have no detrimental effects over the useful lifetime of the equipment. What good will come from shutting your system down? Reduced energy consumption!

### **My screen saver saves energy**

A screen saver does nothing to reduce the energy consumption of your computer. (Modern monitors don't even benefit from the screen saver's original purpose -- preventing image burn-in.) Enabling power management is the only means of consuming less energy when your computer is turned on but isn't being actively used.

### **My computer consumes a lot less energy when I'm not using it**

Sorry, but the difference in energy consumption between an idling computer and one that is being actively used is negligible. Properly configured power management settings are necessary to lower energy use in inactive computers.

## 12. **Recycling drive**

Start a recycling drive - As recycling saves on CO2 emissions, implement an improved recycling programme is being implemented covering paper, plastic and metal as well as old/broken computer equipment.

Recycling conserves energy and resources - Actively promoting recycling programs to reduce waste sent to landfills and help conserve energy. Implementing an Environmental Management System (EMS) and seeking ISO 14001 registration.

Recycle toner cartridges. It's an important strategy, because toner is second only to paper as our industry's highest-volume consumable. This program is simple, easy and free. However, it requires your participation to work.

Typically, between 95% and 100% of the total weight is recovered. This keeps used cartridges out of our landfills and conserves the energy and resources required to manufacture new ones. Also promote recycling of all empty toner containers.

## 13. **Video conferencing**

Where possible promote video conferences rather than face-to-face meetings to reduce CO2 emissions during travel.

## 14. **Good housekeeping measures**

Encouraging staff to turn-off lights and equipment when not in use etc.

## 15. **Off-set your carbon emissions**

We can't eliminate all our emissions. But we can do something to mitigate their effect, like planting trees, investing in renewable

energy, eating less meat, or buying carbon off-sets, controversial as they are (see the New Internationalist issue devoted to the topic). Head back to the Resurgence environmental calculator and figure out your emissions. If your organisation runs a canteen or purchases food for functions, add your food footprint to it from the food carbon footprint calculator. Tot up your tonnage, then go to EcoBusinessLinks and choose the best carbon off-setting provider according to their analysis.

#### 16. Buy green

Buy new equipment only when you need it. When you do buy, select energy-compliant devices and consider the long-term energy requirements of your purchases.

#### 17. Reduce energy consumption

Enable the power management functions of your computer, and turn off your computer and printer when you're not using them.

#### 18. Print and copy responsibly

Always consider circulating and editing documents electronically. Print and copy on both sides of the paper whenever possible, and follow other tips to conserve paper, ink and toner.

#### 19. Dispose of your computer properly

When you must part with your computer, consider donating it to Columbia or to a community organization. If its useful life has come to an end, see that it is recycled, never discarded.

#### 20. Spread the message to your friends and colleagues

Tell others about the ease and importance of green computing.

#### 21. Green ideas

Encourage and reward staff to suggest ways in which you can become even greener effectively.

#### 22. Reduce your personal CO2 footprint - Green begins at home

To persuade business colleagues you have to be persuaded yourself. There are so many things you can do to help reduce your CO2 emissions. In fact you'll be amazed just how easy it is to save energy, often without spending a penny. Here are just a few simple ideas to help get you started:

- (1) **Only boil as much water as you need** - Electric kettles consume nearly 30% of all the electricity an average kitchen uses. To save energy only boil as much water as you need (but remember to cover the element if you're using an electric kettle). If everyone in the country did this we'd save enough electricity to power two thirds of the street lighting in the UK.
- (2) **Don't use your car for short journeys** - Nearly a quarter of all car journeys are less than 2 miles and cars consume most fuel at the start of their journey when the engine is cold. Walking or cycling for short journeys is not only good for your health, but could also reduce the amount of CO2 emissions that are released into the air.
- (3) **Dry your clothes outside or on a drying rack where possible** - In dryer weather, hanging your clothes outside rather than using the tumble dryer will reduce your CO2 emissions. They will dry quickly and smell fresh too. If you have space, then a clothes drying rack inside your home will dry your clothes just as effectively. If you do use the dryer, try to make sure you fill it each time, rather than putting on a number of small loads.
- (4) **Switch to energy-saving bulbs** - Choosing energy-saving light bulbs is one of the easiest ways of cutting your energy use. Just one energy saving light bulb can reduce your lighting costs by up to £100 over the lifetime of the bulb - and they last up to 12 times longer than ordinary light bulbs. If every household in Britain replaced just three normal bulbs with energy savers, enough energy could be saved to run all the country's street lighting.
- (5) **Turn off your appliances instead of leaving them on standby** - Across the UK we waste the equivalent of around two power stations' worth of electricity each year simply by leaving appliances like computers, printers and TVs on standby mode, and leaving chargers for appliances like mobile phones and electric toothbrushes switched on when not in use. Mobile phone chargers left plugged in waste over £60 million and are responsible for a quarter of a million tonnes of CO2 every year alone. So turn off appliances using the main on/off switch (not the remote control) and unplug chargers when they are not in use.
- (6) **Turn down thermostat** - If your heating bills are burning a hole in your pocket try turning down your thermostat by just one degree at a time. Each one degree drop can help reduce your bill by up to 10% and save you around £40 per year. We recommend aiming for around 19-20°C in your living room and around 18°C in your bedroom.
- (7) **Cook in a microwave** - Microwave cooking can make significant reductions in your energy bills as it is much more energy efficient than conventional ovens. You don't even have to sacrifice your cooking skills as most microwaves

these days allow you to do many of the cooking functions of a normal oven. Microwave ovens cook food faster than conventional ovens because the energy goes directly into heating the food and not into heating the oven.

- (8) **Improve your insulation** - Around half the heat lost in your home escapes through the walls and roof. Cavity wall insulation costs about £260, can take a couple of hours to install, and could save you up to £160 a year on fuel bills.
- (9) **Use labels to buy energy and water efficient appliances** - The Energy Saving Recommended logo can only be used by the most energy efficient products, usually the top 20 per cent of those available. Many appliances also have a European Energy Label which rates energy efficiency on a scale of A (best) to G (worst), and provides information on water use.
- (10) **Use timers and thermostats** - Take control of your heating and you could save energy and money. Reducing the temperature on your thermostat by 1 degree could save up to 10 per cent on heating bills.
- (11) **Buy sustainable wood** - Try to choose furniture and DIY materials made from sustainably-produced wood - look for labels from the Forest Stewardship Council (FSC), the Programme for the Endorsement of Forest Certification schemes (PEFC) or other schemes that certify sustainable timber.
- (12) **Wash clothes at 30 degrees, and in full loads** - Your washing machine uses energy and water more efficiently when it's full, and washing at lower temperatures saves energy too.
- (13) **Keep the VOCs low** - Volatile organic compounds (VOCs), which are found in paints, finishes and preservatives, can be harmful to humans, wildlife and plants. Most of these products carry a label showing their VOC content, so try choosing the ones with lower VOCs.
- (14) **Turn off appliances instead of leaving them on standby** - Electrical appliances left on standby waste six to ten per cent of all energy used in the average home. Switch TVs, stereos, mobile phone chargers and other gadgets off at the switch or the plug when you're not using them.
- (15) **Install water-saving products** - Low flush volume toilet cisterns and aerating heads on washbasin taps help reduce your water use significantly.
- (16) **Fix dripping taps** - A dripping tap or overflow can waste a lot of water (just 2 drips a second adds up to about 26 litres of water a day). Fitting a new washer is cheap and can take only a few minutes.

For more information and a quick guide to greener living go to:

<http://www.direct.gov.uk/en/Environmentandgreenerliving/Greenerlivingaquickguide/index.htm>

### 23. Just do it!

Keep checking your emissions, create a graph (based on the final table at <http://www.resurgence.org/carboncalculator/index.htm>), create a plan and put it up on the wall. Show staff you mean business, and assist them in any ways they can to reduce their personal impact on the environment. Make it happen!

### Acknowledgements

This is a high level summary from a variety of Internet sources including Adam Pope's article Seven ways for record management to green your business; Optical Imaging Versus Paper Records Storage by Robert Baldygo; University of Columbia; NCC Guidelines; [www.direct.gov.uk](http://www.direct.gov.uk); other Govt sites and online sources.