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**Canon**

ENVIRONMENTAL

## Transforming Print to meet Government Targets



*We Speak Image*

# 1. Helping you meet the Green Challenge

There is increasing pressure, from Central Government, on all organisations to reduce their environmental impact and meet Government environmental targets<sup>1</sup>. The public sector organisations can often be device and document heavy environments, and yet are expected to set an example for other organisations to follow in the area of best practice.

Public Sector Organisations are often expected to set an example in developing best practice.

This may seem a huge challenge, however, the cumulative effect of many small changes can make an enormous difference. Just becoming aware of the impact of the way you perform operations is the first step towards reducing your carbon footprint. For the Public Sector, despite not usually being involved in energy intensive manufacturing processes, energy consumption still needs to be addressed.

The reality of the situation is that energy consumption in the industrialised world has increased exponentially over the past 40 years. The public sector is no exception to this. For example, in 1976 one London Borough had less than 20 computer terminals in its civic centre, but now has thousands of PCs and printers.

However, before calling in consultants to tell you what you probably already know, there are some simple things organisations can do to address the issue. Here are a few easy-to-implement steps to get you printing greener right away.

- *Double-side print by default:* By setting your printer to print on both sides can save up to 40% of your paper consumption
- Use paper-saving modes e.g. A5 booklets
- Use new, energy efficient technology
- Adopt pro-active fleet management of technology to ensure the right amount of devices to meet requirements
- Install device-release print technology so users release print jobs at the print device and reduce paper usage
- Install document accounting software to manage user behaviour and optimise resource
- Ensure your office paper has a recycled content and is sourced from a supplier with sound environmental management systems
- 'Scan to email' where possible rather than sending hard copies via courier or internal mail  
This can save time, cost and reduce associated fuel usage
- Unplug little-used desktop printers: Print to multifunction devices to save electricity, toner and ink
- Turn off all printers at night: Saves energy, money and cuts CO<sub>2</sub> emissions

While these easy measures will begin to affect a change, it will be necessary to review the bigger picture. Many office print solutions have been accumulated over several years without a coordinated approach, but as technology has moved on, it is probably easier than you think to reduce the environmental impact of your document strategy.

As an experienced supplier to this sector Canon can show you simple ways to:

- Use less power
- Reduce your paper and toner consumption
- Adopt paperless processes

### Using less power

- *Low-power standby:* Whereas older devices sometimes use as much as 690w in standby mode, today's energy efficient devices offer standby consumption as low as 1watt. By sourcing energy efficient products you can dramatically cut down your power consumption

The European Commission has recently adopted an ecodesign regulation to reduce standby energy consumption of all household and office products. The regulation lays down energy efficiency requirements, which will cut the standby electricity consumption by almost 75% by 2020<sup>2</sup>

- *Lower energy-use devices:* Canon uses on-demand fixing technology which only heats up when required saving up to 75% of energy compared to traditional fixing technology<sup>3</sup>
- *Using fewer devices:* Consolidating separate devices into a shared multifunctional printer that also scans, copies and faxes is another effective way of reducing your energy consumption. It saves on valuable office space too. Now software can automatically direct print jobs to the most appropriate device on a network thus reducing wear & tear and improving efficiency

### Reducing your paper and toner consumption

- *Reducing uncollected output:* Unnecessary print can be eliminated by *device-release print* - users release their print job at the printer with either a swipe card or PIN - which can typically save 30% of paper and toner usage, and offers the additional benefit that confidential printouts cannot go missing.
- *Double-sided printing:* It takes just 4 seconds to set double-sided printing as default, saving up to £3,000 per device and up to 40% of paper used<sup>4</sup>

Another paper-saving option is to print A5 booklets – suitable for reports and presentations.

### Using paperless processes

- *Send documents digitally:* By using multifunctional devices to scan to email, fax, FTP, database, desktop or a document management system, you can send many documents digitally - removing the need to print them altogether

The cost and environmental benefits of this approach include reduced fax costs and associated electricity usage, courier costs and the burden of transportation, plus reduced costs of document storage

- *Develop a document strategy:* Using these technologies, in the context of a full document strategy, will ensure your organisation derives maximum environmental and organisational benefit

Canon has a proven track record of helping public sector organisations. You can find out more by reading our case studies at [www.canon.co.uk/publicsector](http://www.canon.co.uk/publicsector)

## 2. Addressing Eco-apathy

Canon's recent research<sup>5</sup> into green attitudes showed that organisations expecting their staff to take individual responsibility for reducing environmental impact are likely to be disappointed.

Whereas recycling and energy efficiency is common practice at home, just 5% of workers questioned said that they were more environmentally conscious at work and only 48% believed that protecting the environment during office hours was their responsibility.

...only 48% (of workers surveyed by Canon (UK) Ltd) believed that protecting the environment during office hours was their responsibility.

33% felt that bosses should shoulder the burden and 9% even went as far as saying that it should be the government, not them, who should be held accountable for polluting practices.

39% of employees said their company didn't have a green policy designed to reduce their environmental impact and where one did exist, 46% said that it was just for show and had no real meaning to the business and its staff. Perhaps a more telling indictment of UK workers' 'eco-apathy' is that one in ten didn't even know what a green policy was.

While small changes can have a considerable impact on environmental factors, in the light of these results it is clear that any organisation serious about change must enforce it at a strategic level. For example, it is no use expecting individuals to choose the double-sided setting each time they print – they may not. It is far more effective to set duplex as a *default setting*.

## 3. An Experienced Partner for the Public Sector

Canon has a long-standing relationship with all areas of Government making them an experienced partner to advise and assist any organisation in the public sector on implementing energy and resource efficient print solutions.

Canon UK's customers typically experience savings in three key areas:

- reduced hardware through fleet management
- lower electricity costs from efficient technology
- reduced paper consumption through managed user behaviour

## 4. Green Business Practice – Leading by Example

Environmental considerations are at the heart of Canon UK's operations, from the design and function of our offices and buildings, to transport and waste policies.

- *Award-winning head office:* Our award winning head office building incorporates solar roofing, natural air conditioning and heat absorbing concrete and has won 9 environmental awards including the *Royal Fine Art Commission Trust 2001 Building of the Year*. It has also achieved the highest rating by the Building Research Establishment Environmental Assessment Method (BREEAM)
- *City walking technicians:* To reduce pollution in built up areas, our service teams operating in cities travel on foot. Where cars are necessary, efficient preventative maintenance keeps call-outs to a minimum and our eMaintenance service ensures most faults can be fixed in a single visit, thus reducing mileage
- *Living showroom concept:* Canon UK's head office in Woodhatch, Surrey showcases many of our green technologies and customers are able to see how they support and add value to the legal, sales, human resources, finance and marketing functions of our business.

Also based on site, the Canon UK Print Centre ensures we are leading by example, using Canon print technology to print on demand for marketing materials

- **Green transport policy:** Canon UK's car policy is capped to vehicles emitting a CO<sub>2</sub> level of below 160g/km. The company's standard technician's car is the VW Golf 1.9 SE Tdi Estate, with a CO<sub>2</sub> figure of 137 g/km, equipped with satellite navigation which has proven to reduce the number of miles driven by 18%

Since 2004, all company car drivers have completed an on-line assessment and, depending on the results, have undertaken further training. Around 300 have had on-road driver training with the Institute of Advanced Motorists (IAM), an element of which deals with environmentally friendly driving

Canon UK's fleet audit carried out with government organization the Energy Savings Trust (EST) yielded very positive results

- **Minimising waste:** Canon gives considerable focus to reducing waste on an ongoing basis. For example, a waste reduction and recycling initiative at our head office has reduced the amount of general waste by a third

## 5. Kyosei - A Living Philosophy

On an international and global scale, Canon is a world-leading innovator and provider of imaging and information technology solutions for the home and office environments and is proud of its green credentials.

All its operations, from R&D, through manufacturing to the sales and after sales processes, are governed by the corporate philosophy 'Kyosei', which roughly translated from the Japanese means '*living and working together for the common good*'. In this way respect for the environment is integral throughout Canon's business operations.

For example, Canon introduced environmental accounting in 1983 to help ensure its management resources are being invested effectively.

Canon came out number 1 in the electrical/electronics category in the Sunday Times Best Green Companies Aware 2008 and number 2 position in the global electronics category in an independent survey by *Climate Counts* in 2007 - good evidence that, far from mere warm words, our philosophy is translated into real environmental action.

Canon introduced environmental accounting in 1983

2007 figures show an investment of approximately £124m in environmental protection, including approximately £41m for improvements in global warming prevention measures and advances in the efficient use of resources. The accounting system allows the benefits of such investment to be quantified at approximately £52m<sup>6</sup>.

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While environmental accounting gives the wider picture, measuring the carbon footprint of an individual product provides a close up view and allows informed decisions to be made about manufacturing processes.

This is a relatively new development so, as yet, there is no universally accepted standard for calculating carbon costs. Canon is at the forefront of research into effective measurement systems and has already published figures for one machine. Going forward any savings made by improving manufacturing processes can be evaluated and the data independently verified.

## 6. Responsible Manufacturing

In 2004, Canon was the first company in the industry to release a RoHS compliant product

In 2004, Canon was the first company in the industry to release a RoHS compliant product with all products following suit in 2005. In addition we also eliminated seven additional chemicals (asbestos, ozone depleting substances, short chain chlorinated paraffins, azo dyes, tributyl tin oxide, polychloronaphthalenes and polychlorinated biphenyls) from all production processes. These chemicals are currently not covered by the RoHS (Restriction of hazardous substances) or REACH (Registration, Evaluation, Authorisation and restriction of Chemicals) legislation. Canon refers to this as *RoHS+7*.

In 1990, Canon's Japanese operational sites alone generated 35,000 tons of landfill waste but since 2005 Canon has achieved 'zero waste to landfill' from all manufacturing sites.

Since 2005 Canon's manufacturing sites have achieved zero waste to landfill

At Canon we seek to reuse and recycle wherever possible and one example is the Canon Green Calculator, which we manufacture from recycled printer casings.

Developing the technology necessary to recycle is key and since 1990 Canon has been cooperating with resin manufacturers on numerous types of recycled plastic. We use '*sandwich moulding*,' in which recycled material is sandwiched between layers of virgin plastic and this enables the use up to 30% recycled plastic. What's more, , Canon has been working with moulding machine manufacturers on the development of thin walled multi-layer injection technology to boost this usage to over 80%.

Reducing waste extends beyond Canon's own activities to those of our customers. For example, printer toner bottles have been traditionally difficult and expensive to recycle, but now we are able to offer customers the opportunity to do so as an additional service, providing full document traceability for their waste as well as suitable evidence for external auditors.

## 7. Making the Grade – in Products...

Throughout the product planning stage Canon places great emphasis on compliance with environmental regulations and programmes such as the international ENERGY STAR® Program and the Eco Mark.

Canon's compliance rate remains among the very highest in the industry, with many product groups at 100% compliance. Canon is also a member of the WWF UK forest & trade network, which focuses on establishing processes to source papers from reliable known wood sources.

The International ENERGY STAR® Program issued revised Energy Efficiency Standards on 1<sup>st</sup> April 2007, and Canon is making sure that its products meet the increasingly strict stipulations of this new standard.

Canon is also hard at work qualifying under eco label programmes outside of Japan. With an eye on green purchasing laws around the world, we develop and design products that meet each country's standards. Canon U.S.A., Inc. has been selected by the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy to receive the *2008 ENERGY STAR® Award for Excellence in Product Labeling*. This award recognises Canon's high percentage of products qualifying for the ENERGY STAR® Program and consistency in promoting public awareness of the Program.

Canon remains a committed partner in reducing greenhouse gas emissions through continuous innovation of energy-efficient products. To date, Canon U.S.A. Inc. has received 10 ENERGY STAR® Program awards.

## 8. Making the Grade - Greenticks

The UK Department for the Environment, Food and Rural Affairs (Defra) manages the government's 'Buy Sustainable Quick Win' standards, to grade products according to their environmental credentials. The scheme covers IT equipment, white goods, paper and construction materials, amongst other categories.

Buying Solutions has worked with Defra to launch the new 'Greenticks' initiative. This makes it easier to identify which products meet the Government sustainability standards on the Buying Solutions online catalogue. Products meeting the mandatory minimum standards are marked with a 'Greentick' symbol, while those meeting the more demanding best-practice standards are marked with a 'Greentick-plus'.

All Canon multifunctional printers meet the best practice Quick Win standard 'Greentick-plus'.

## 9. Making the Grade - in Business...and Beyond

Canon achieved consolidated global ISO14001 certification in 2006 at their manufacturing and marketing subsidiaries in 38 countries and regions around the world, including North America, Europe, Asia, and Australia.

Looking beyond the business domain, Canon Europe became one of WWF's first Conservation Partners in 1998, one of a select group of multinational companies that significantly contribute -in many different ways - towards WWF's global conservation work.

Canon supports WWF's mission to stop the degradation of the planet's natural environment and build a future where people and nature thrive within their fair share of the earth's resources.

This support includes:

- providing funding for WWF's activities through a sponsorship fee
- adhering to high standards of environmental responsibility and good corporate citizenship
- promoting conservation through publicity of the conservation partnership and setting an example for other corporations to follow

2007 saw the development of a WWF-Canon Polar Bear Tracking Programme and the related 'Canon Kids' Zone' children's microsite, which educates young people on the effects of climate change.

All information correct as of June 2009. For further information please go to [canon.co.uk/publicsector](http://canon.co.uk/publicsector)

Key:

1. Sustainable Operations on the Government Estate (SOGE): [http://www.ogc.gov.uk/sustainability\\_soge\\_targets.asp](http://www.ogc.gov.uk/sustainability_soge_targets.asp).
2. [http://ec.europa.eu/energy/efficiency/ecodesign/eco\\_design\\_en.htm](http://ec.europa.eu/energy/efficiency/ecodesign/eco_design_en.htm)
3. Canon Sustainability Report 2008
4. Based on annual paper consumption of 50 reams/head in an office of 50 with a 40% paper saving at £3/A4 ream
5. Eco Apathy research conducted by Canon (UK) Ltd - 2009.
6. Canon Sustainability report 2008



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