



# Partner with HP for the environment

HP produces low-carbon solutions and energy-efficient products, using safer materials and reduced packaging to help create a more sustainable world, while helping to lower operating costs for our customers. From products designed for the environment, extensive return and recycling programs, and technical innovations, HP is committed to reducing our environmental impact—and yours.

# You can make a difference

Ideas that make sense for the environment—  
and your business



## Lower your overall carbon footprint with HP

Carbon footprint is generally defined as the environmental impact of a particular organisation, event, person or product over a given period.

- The primary carbon footprint of an HP printer is the sum of direct greenhouse gas emissions needed to manufacture and operate the product, as well as those needed to transport the device from the point of manufacture to sale and end of use of the product.
- The secondary footprint is the total of indirect emissions associated with the manufacture and breakdown of all associated products. For printers, this includes ink, paper, product packaging, etc.

HP products can help minimise your company's overall carbon footprint while actually improving productivity, so you can save money and expand opportunities while reducing environmental impact.

## HP LaserJet printers and MFPs

HP LaserJet printers and multifunction printers (MFPs) are intelligently designed to help you meet your energy goals, without sacrificing performance. Energy-efficient features include:

- Original HP Toner cartridges with JetIntelligence consist of reformulated toner with a low melt point and hard shell that supports more pages<sup>1</sup> in a smaller, faster printer. HP printers with JetIntelligence toner cartridges use less energy to print a page.<sup>2</sup>
- Toner-coverage sensing technology automatically adjusts fuser temperature based on toner coverage needed for a print. For instance, a typical office document (low coverage print) uses less toner and energy to print than a photo (high coverage print).
- Media-sensing technology detects paper type and automatically adjusts print settings. The fuser uses less energy to print on thinner papers.
- With Instant-on Technology, the fuser warms rapidly and cools quickly, helping you conserve energy.<sup>3</sup>

## Business printers with HP PageWide Technology

HP OfficeJet Pro X and HP OfficeJet Enterprise X devices use less energy than any other comparable HP device.<sup>4</sup> HP PageWide Technology features a stationary print bar that spans the width of a page and prints entire pages in a single pass. Environmental benefits of HP PageWide Technology include:

- The smallest carbon footprint of any HP printers in their class—by a dramatic margin.<sup>5</sup>
- Fewer moving parts contribute to lower energy use.
- Use up to 84% less energy than laser printers<sup>6</sup>—in part, because there is no fuser element to heat in order to print.
- Use up to 94% less supplies and packaging by weight compared with lasers.<sup>7</sup>





#### Useful links

##### HP Extreme software

[www8.hp.com/us/en/software/exstream-software.html?compURI=1384727#.VV5RoPIViko](http://www8.hp.com/us/en/software/exstream-software.html?compURI=1384727#.VV5RoPIViko)

##### HP Smart Print

[hp.com/go/smartprint](http://hp.com/go/smartprint)

##### HP Managed Print Services

[hp.com/go/mps](http://hp.com/go/mps)

##### HP Web Jetadmin

[hp.com/go/webjetadmin](http://hp.com/go/webjetadmin)

##### HP Access Control Intelligent Print Manager

[www8.hp.com/us/en/solutions/access-control-printing-solutions/intelligent-manager.html](http://www8.hp.com/us/en/solutions/access-control-printing-solutions/intelligent-manager.html)

##### HP Planet Partners

[hp.com/recycle](http://hp.com/recycle)

##### HP paper policy

[www8.hp.com/us/en/hp-information/global-citizenship/environment/paperpolicy.html](http://www8.hp.com/us/en/hp-information/global-citizenship/environment/paperpolicy.html)

##### HP Carbon footprint calculator

[www8.hp.com/us/en/hp-information/environment/hp-carbon-footprint-calculator.html#.VVONhvlViko](http://www8.hp.com/us/en/hp-information/environment/hp-carbon-footprint-calculator.html#.VVONhvlViko)

## Duplex printing

**Save up to 25-50% on paper waste.** Duplex (two-sided) printing can cut your paper use by up to 25-50%, depending on the number of odd pages printed. When purchasing a new printer, make sure it has the double-sided printing feature available. Set duplex as the default printer setting or manually load your pages if this automatic option is not available on your existing device. Tools such as HP Web Jetadmin<sup>8</sup> and the HP Universal Print Driver<sup>9</sup> allow IT to set this paper-saving function as the default on networked printers and MFPs.

## HP Auto-On/Auto-Off Technology<sup>10</sup>

**Reduce power consumption.** The Power Save or Sleep mode included in most printers and MFPs on the market still use considerable amounts of energy. Auto-Off can use up to 26 times less energy than a traditional Sleep mode.<sup>11</sup> You can decrease energy use and costs by turning devices off during nights and weekends.

HP Auto-Off allows users to set their device to automatically turn off either when it detects a period of inactivity or at a preset time each day. Similarly, HP Auto-On allows users to decide whether their device will turn on at a preset time each day or if it will awaken when it senses activity.

## Pull printing

**Reduce paper waste with pull printing.** User-authenticated printing techniques—such as PIN and pull printing—store jobs on the server, in the cloud, and on networked printers until the authorised user is ready to print them. Pull printing also reduces waste from misplaced or abandoned print jobs and avoids accidental printing on expensive specialty papers.

## Share documents digitally

**Save paper and postage with fewer mailings.** HP multifunction printers make it easy to scan, store and share documents digitally. The need for printed faxes and the amount of paper used is thereby reduced.

HP Extreme Dialogue software helps businesses design statements, invoices and marketing collateral more effectively—and in doing so print more responsibly—through optimised whitespace management and householding (see Useful links at left). This results in fewer mailings which saves paper and postage.

## HP Smart Print

**Save up to 25% of paper waste.** Print only the Internet content you need. Avoid wasting paper and ink or toner on unnecessary website advertisements and unwanted sections. You can reduce your paper waste by up to 25% when you print from the web using the free HP Smart Print application (see Useful links at left).

## Use the right paper

**Choose FSC<sup>®</sup> certified HP Office Paper.** Making the right paper choice has an impact on your printing environmental footprint. HP's Environmentally Preferable Paper Policy is one of the most rigorous in the industry, outlining principles for buying, selling, and using paper and product packaging. Choose FSC<sup>®</sup> or PEFC<sup>™</sup> certified HP paper—it's sustainably sourced and helps promote healthy forests today and in the future.<sup>12</sup> HP's policy is to use fiber from responsibly managed forests.

## Eco-labels

HP printers and MFPs meet some of the most rigorous eco-labelling requirements in the world. Choosing one of these devices can help your organisation achieve its environmental goals—without sacrificing the performance and print quality that HP delivers.



**ENERGY STAR®** is a voluntary U.S. government programme managed by the Environmental Protection Agency (EPA) and recognised worldwide. HP products with the ENERGY STAR logo are certified to the U.S. Environmental Protection Agency's ENERGY STAR specifications.



**EPEAT®** (Electronic Product Environmental Assessment Tool) is a procurement tool to help institutional purchasers in the public and private sectors evaluate, compare and select desktop computers, notebooks, monitors and printers based on their environmental attributes.



**Blue Angel** is a German eco-label based on criteria in product design, energy consumption, chemical emissions, noise, recyclable design and take-back programmes.

For more details, see [hp.com/go/energystar](http://hp.com/go/energystar).

## Eco printer services

**HP Managed Print Services.** HP Managed Print Services helps cut costs and conserve resources, with energy savings of up to 40% and millions of pages in reduced paper waste.<sup>13</sup>

**Create a smarter printing environment by applying printing rules.** HP Web Jetadmin<sup>8</sup> allows IT departments to centrally manage their entire printing fleet, and HP Access Control Intelligent Print Manager encourages more environmentally conscious printing habits among users.

## Original HP toner cartridges

**Reduce your environmental impact without compromising quality.** Print confidently with Original HP. Test results showed Original HP LaserJet toner cartridges delivered pages that were acceptable for all uses, on average, 97% of the time.<sup>14</sup>

Since 2000, over 158 million pounds (72 million kilograms) of recycled plastic have been used in manufacturing new Original HP ink and LaserJet toner cartridges, keeping 3,950 tractor-trailer loads of plastic from going to landfills.<sup>15</sup>

## HP Planet Partners return and recycling programme

**Help close the loop and keep plastics out of landfills.** HP helps you recycle your Original HP cartridges—it's easy and convenient with the HP Planet Partners programme, available in more than 60 countries and territories around the world.<sup>16</sup> HP recycles its cartridges using a closed-loop recycling process where recycled plastics from HP Planet Partners are used as raw material in new HP cartridges. No Original HP cartridges returned through HP Planet Partners are ever sent to a landfill. For more information, visit [hp.com/recycle](http://hp.com/recycle).

Learn more at  
[hp.com/environment](http://hp.com/environment)

<sup>1</sup> Based on cartridge yields for HP 131A and 507A compared with HP 201X and 508X Original HP Toner cartridges. For more information, see [hp.com/go/learnaboutsplies](http://hp.com/go/learnaboutsplies).

<sup>2</sup> As compared with previous generation of HP LaserJet printers.

<sup>3</sup> Compared with products that use traditional fusing.

<sup>4</sup> Less energy claim based on the HP PageWide Technology array life cycle assessment (LCA) results. LCA of HP PageWide Technology array commissioned by HP and conducted by PE International as of September 2014.

<sup>5</sup> Carbon dioxide equivalent (CO<sub>2</sub>e) savings of the average lifetime use of printing 100,000 pages using an HP OfficeJet Pro x576dn is up to 81% lower than the HP LaserJet Pro M570dn MFP and up to 79% lower than the HP LaserJet Enterprise M551dn Color Printer. CO<sub>2</sub>e savings of the average lifetime use of printing 100,000 pages using an HP OfficeJet Enterprise x585dn is up to 70% lower than the HP LaserJet Pro M570dn MFP and up to 68% lower than the HP LaserJet Enterprise M551dn Color Printer. Life cycle assessments (LCA) commissioned by HP and conducted by PE International in September 2014. Specific results run by HP internal LCA experts.

<sup>6</sup> Based on internal research, the HP OfficeJet Enterprise X series, while printing, requires up to 80 watts to print. The weighted average for competing devices is 508 watts. Energy claim based on testing comparisons of major competitors in default modes by Buyers Lab Inc., March 2014. Internal testing reveals the HP OfficeJet Pro X576dn uses up to 50% less energy compared with the majority of colour laser MFPs <\$1000 USD and colour laser printers <\$800 USD as of August 2012.

<sup>7</sup> The HP OfficeJet Pro X576dn generates up to 94% less waste per 15,000 pages compared with major in-class competitors' colour laser MFPs <\$1,000 USD and colour laser printers <\$800 USD as of July 2014. Tested by Buyers Lab Inc. and commissioned by HP. The HP OfficeJet Enterprise X585dn generates up to 90% less waste compared with the majority of colour laser MFPs <\$3,000 USD based on market share as reported by IDC as of Q3 2013.

<sup>8</sup> HP Web Jetadmin is free and available for download at [hp.com/go/webjetadmin](http://hp.com/go/webjetadmin).

<sup>9</sup> The HP Universal Print Driver is free and available for download at [hp.com/go/upd](http://hp.com/go/upd).

<sup>10</sup> HP Auto-On/Auto-Off Technology capabilities are subject to printer and settings. May require a firmware upgrade.

<sup>11</sup> Sourcing More Sustainable Print for your Organization. For more details, please visit [hp.com/hpinfo/newsroom/press\\_kits/2010/pluginandprint/pdf/HPAOAO\\_Solution\\_Brief.pdf](http://hp.com/hpinfo/newsroom/press_kits/2010/pluginandprint/pdf/HPAOAO_Solution_Brief.pdf).

<sup>12</sup> Forest Stewardship Council® (FSC®) License Code FSC®-C017543, Programme for the Endorsement of Forest Certifications schemes (PEFC™) License Code PEFC/29-31-198.

<sup>13</sup> Estimated energy and paper savings based on analysis of select HP Managed Print Services customers' imaging and printing operations using data gathered on devices and paper consumption and comparing with post-MPS actuals or projections. Results depend on unique business environments, the way HP products and services are used, and other factors. Overall printing costs are unique to each company and should not be relied on for savings you may achieve. For more information, see [www8.hp.com/us/en/hp-information/environment/hp-managed-print-services.html#\\_VX-dS\\_IvHbc](http://www8.hp.com/us/en/hp-information/environment/hp-managed-print-services.html#_VX-dS_IvHbc).

<sup>14</sup> A SpencerLab 2015 study, commissioned by HP, compared Original HP LaserJet toner cartridges with eight brands of non-HP toner cartridges sold in Asia (AU, CN, IN, KR, TH, TW) for the HP LaserJet Pro 400 M401, P1102w, and P1108 printers, HP 80A, 85A and 88A cartridges. For details, see [spencerlab.com/reports/HPReliability-PanAsia2015.pdf](http://spencerlab.com/reports/HPReliability-PanAsia2015.pdf).

<sup>15</sup> As of December 2014. Based on a nominal payload of 40,000 pounds (18,000 kilograms).

<sup>16</sup> Programme availability varies. Original HP cartridge return and recycling is currently available in more than 60 countries, territories, and regions in Asia, Europe, and North and South America through the HP Planet Partners program. For more information, visit [hp.com/recycle](http://hp.com/recycle).

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