

# University of California, Davis

Realizing cost and energy savings on campus



## The University of California Davis

"It's amazing to realize we're looking at 35 percent energy reduction when the printers print double sided. We're also reducing costs for printer supplies by cutting paper usage and using high-capacity toner cartridges. It's a program that's right both environmentally and fiscally."

—Janice King, Director of Materiel Management, University of California, Davis

**HP customer case study:** Environmental benefits, cost savings go hand in hand

**Industry:** Education

**HPecoSOLUTIONS**

### Objective:

Reduce energy and paper use from computer printing on campus leading to reduced greenhouse gas emissions

### Approach:

The University of California, Davis:

- Used printer trade-in value and HP PurchasEdge points, earned by purchasing and recycling HP cartridges to purchase new HP printers with ENERGY STAR® certification and duplexing capability
- Consolidated, networked and shared printers
- Transitioned to high-capacity cartridges
- Incorporated HP Eco Solutions.

### Environmental improvements:

- 35 percent savings in printer paper usage
- Energy savings of more than 55,000 kilowatt hours annually
- Elimination of nearly 56 metric tons of carbon dioxide annually from reduced paper and energy production

### Business benefits:

- Estimated annual cost savings of more than \$68,000



Members of the Sustainability Advisory Committee at the University of California, Davis, are always looking for ways to help meet the campus's aggressive goals for reducing energy usage and waste. "The whole sustainability issue causes people to step back and think about things in a different way," notes Sid England, Ph.D., Assistant Vice Chancellor for Environmental Stewardship and Sustainability.

A case in point is Janice King, Director of Materiel Management for the campus. At a recent Sustainability Day vendor fair, she sat down with vendor representatives to ask if there was a way for UC Davis to manage their printing environment as well as leverage existing rewards programs to achieve environmental goals.

## Customer solution at a glance

### Primary applications

Office printing

### Primary hardware

- HP LaserJet P2015dn Printer
- HP LaserJet P3005dn Printer

### HP Services

- HP PurchasEdge Program
- HP Planet Partners return and recycling program

Thus was born a program that has helped the campus achieve major environmental and cost savings:

- 35 percent savings in printer paper usage over previous use volume
- Energy savings of more than 55,000 kilowatt hours per year
- Elimination of nearly 56 metric tons of carbon dioxide from reduced paper and energy use
- Estimated annual cost savings of more than \$68,000 (excluding printer value)

UC Davis is one of the nation's top public research universities and is part of the world's pre-eminent public university system. The campus is set in the Central Valley, close to the state capital and San Francisco Bay Area.

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Janice King, Director of Materiel Management, University of California, Davis

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Sustainable practices on the campus and throughout the University of California system, "support ecological, human, social and economic vitality for both our campus and the global community. Sustainable actions meet present needs while enhancing both the environment and the ability of future generations to thrive," according to the UC Sustainability Policy.

## Tech thinking outside the box

Members of one printer rewards program earn points based on the dollars they spend on qualifying original ink and toner cartridges as well as recycling those cartridges. Points can be redeemed for more than 400 of the latest products, such as printers, scanners and PDAs — all at no additional cost.

UC Davis departments and offices routinely earn program points through purchases of office supplies. To make the best use of those points, the campus arranged to accumulate and hold them centrally. King, as Director of Materiel Management, could apply them to the campus's needs as she saw fit.

So how do rewards program points translate into paper, energy, and greenhouse gas reductions? The answer is simple: by using them to replace aging printers with new, more efficient models.

King worked with HP to craft a printer take-back program. Offices with printers at least 12 years old — there were many — were encouraged to bring in their old printer or printers, and in exchange get a brand new one.

"We identified a lot of printers being used on campus that were no longer good for the environment — weren't as energy efficient as new ENERGY STAR®-qualified printers and didn't print double-sided — and arranged to replace them with new printers with better capabilities," King explains.

For individual UC Davis users and departments, the incentive is clear: a free printer with the latest technology. For the campus, the program provides continuing cost savings and environmental benefits.







Thus far, the campus has replaced more than 400 old printers, acquired by redeeming a large number of accumulated points. King estimates that ongoing HP office supply purchases will enable them to continue deploying some 50 new printers each quarter.

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The new printers are all ENERGY STAR® qualified. They use substantially less energy than the typical printers they replace from the mid-1990s, thanks to improved engineering including such features as "sleep" cycles. They also enable offices to automatically default to printing on both sides of the paper and, as networked devices, can serve many individual users.

"We're hoping that in many places we have replaced multiple, older printers with a single, new one with higher capacity," King notes. "One of our criteria in the selection of models was networking capability. We're encouraging the departments to network for optimum usage."

King says the campus encourages use of electronic processes whenever possible — e-mailing rather than copying a document and distributing it in hard copy,

for example. It also encourages double sided printing and use of new, high-capacity cartridges (and plans to eliminate smaller cartridges from its office supply catalog next year).

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Janice King, Director of Materiel Management, University of California, Davis

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"I initially underestimated what the program's impact would be," King acknowledges. "It's amazing to realize we're looking at 35 percent energy reduction when the printers print on both sides of the paper. We're also reducing costs for printer supplies by cutting paper usage and using high-capacity ink cartridges. When you consider all the different ways these printers are helping us to be more efficient, it's a program that's right both environmentally and fiscally."

The campus has also implemented a recycling program specifically for printer cartridges. HP cartridges are collected and shipped back to HP for recycling. And the newly "retired" printers are sent to recycling.

"We wanted to make sure they were removed from the campus, so as part of the program we shrink-wrap the old printers in bulk and send them back to HP for recycling," King says.

### Spreading the word

King and Dr. England aren't implementing the program quietly; they're spreading the news by word of mouth and through campus publications. "The program's energy- and cost-saving benefits have been communicated to the greater campus community, and Janice talked about it at a sustainability conference involving all the public universities, state universities and community colleges in California," reports England.

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Consolidating PurchasEdge points from the HP rewards program was essential to making the program effective at UC Davis, King adds. Implementing HP LaserJet print cartridge recycling adds to the point accumulation for future printer purchases, and has been set up in a

way that's convenient and doesn't require additional staff. "We're really happy that we found a way to use points to benefit users throughout the campus," she notes.

She says UC Davis was fortunate that all the players in the printer program report up through her organization — including the mail division (which collects toner cartridges), the storehouse (where printers are exchanged), and the contracting/purchasing function with vendor contact. "It all started as a purchasing initiative, but it couldn't have been successful without participation from our whole staff."

Looking ahead, she says the UC Davis campus is close to fully replacing its 12-year-old printers. Now the program is being expanded to serve the UC Davis Health System campus in Sacramento, and to begin replacing slightly newer printers — such as those that are only a decade old.

"We're also starting programs to find people in various departments to help us identify and implement best practices to support the sustainability initiative," says England. "It's a work in process, but we're clearly making progress."

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