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California's 'green' ink-cartridge recycling fails to cut pollution, or costs

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On paper, the recycling program was touted as a bold step toward California's green, climate-friendly future.

A mountain of plastic and metal would be diverted from landfills. Greenhouse gas emissions would tumble. And one of Gov. Arnold Schwarzenegger's climate change goals – trimming power use in state buildings by 20 percent – would nudge closer to reality as agencies snapped up new, more efficient office printers.

That is what state and Hewlett-Packard officials said last year when they joined forces to ship used HP printer ink cartridges from state offices to Virginia to be ground up and recycled into auto parts, serving trays, clothes hangers and other products.

But a Bee investigation, based on more than 100 pages of e-mails and other records, has found that 17 months after it was created, the program has delivered few if any of its promised climate benefits.

Almost from the start it ran into opposition from the state's purchasing specialists at the Department of General Services, who were not consulted about it and who – once they started asking questions – turned up other

concerns, including allegations of unfair competition and ink waste.

They also favored reusing cartridges by refilling them at local businesses, a process known as remanufacturing.

"It is to HP's advantage to get as many remanufacturable cartridges off the market as possible," Robert Tetz, manager of the department's environmentally preferable purchasing program, said in an e-mail to his boss last year. "I don't believe that this partnership arrangement passes the smell test."

The recycling plan is one of many purportedly eco-friendly initiatives launched in California, a state that portrays itself as a green-minded model for the world. But Scot Case, who investigates green marketing claims, said the state HP plan is the wrong choice for the environment.

"It is completely ridiculous to ship a product from California to Virginia to be reground when you could refill those cartridges in California and reuse them," said Case, vice president of TerraChoice Environmental Marketing, which places the green "EcoLogo" label on thousands of consumer products – but not on new printer cartridges.

"You would use fewer resources," Case said. "And you would create significantly less global warming impacts."

For their part, most DGS employees are not free to speak to The Bee. "We have a policy

that we have high-level spokespeople ... respond to questions," said Jeffrey Young, the agency's deputy director of public affairs.

And Tetz, the green purchasing manager, has been ordered to clam up. "Bob, per my voicemail, I need you to stand down on any communication with Mr. Knudson. Call me ..." Jim Butler, DGS' chief procurement officer, said in an e-mail.

But their views come through clearly in electronic correspondence.

"The bottom line is that it is environmentally preferable and fiscally prudent to buy remanufactured toner cartridges for state laser printers from California small businesses," wrote Ben Martin, an engineering branch manager at DGS, in an e-mail to a colleague.

Targeting a river of waste

Printer cartridges are a mainstay of the modern office – and a vexing waste problem. One 2007 industry report estimated 46 percent of the larger kind, known as laser jet cartridges, and 84 percent of the smaller inkjet cartridges are dumped in landfills after one use. A follow-up study, commissioned by HP, found 34 percent of the company's laser jet cartridges and 78 percent of its inkjets end up in landfills after one use.

The state-HP recycling effort was aimed at shrinking that river of waste by diverting up to 100 tons of spent state cartridges from landfills every year. But state and HP officials said it would have an additional benefit, striking a blow against climate change by curbing greenhouse gas emissions by 500 tons annually.

Here's how it was supposed to work: For every HP cartridge purchased and recycled, state agencies would earn points toward buying new, more energy-efficient HP printers. Top officials said that would trim power use and slice pollution.

"I'm very excited to announce this project and encourage every state agency and department to recognize the big impact small actions can have to reduce our environmental footprint," said Rosario Marin, then secretary of the State and Consumer Services Agency, in an April 2008 news release.

"Working together to find creative ways to reduce pollution and save money is the best model for a public-private partnership. We strive to be green, while saving lots of green."

Marin, who resigned earlier this year after it was learned that she had accepted money for speeches from drug companies, could not be reached for comment. But records show her advisers believed the plan would be an easy sell.

"These exchanges are low-hanging fruit," said one agency document. "This program will be quickly adopted by other government agencies ... because of its inherent efficiency and cost saving potential."

Reuse called better option

That turned out to be wildly optimistic. At the Department of General Services, where the words "Building Green – Buying Green – Working Green" are displayed prominently on a first floor wall, the plan met with disbelief.

"The only way the huge reductions in greenhouse gases are achievable is if higher-priced, more efficient HP equipment is purchased statewide," wrote Tetz in an e-mail. His program seeks to ensure that state purchases are environmentally sound.

He added that DGS, which draws up contracts for the purchase of everything from copy paper to fluorescent lights, had not researched the plan's claims and could not "ensure an ongoing contractual relationship with HP to achieve these 'goals.'

"I have a significant amount of data that suggests remanufactured cartridges are ... a much better proposition," he said in other e-mails. "Just avoiding shipments of pallets by FedEx to Virginia is a big greenhouse gas saving ... "

Scott Canonico, environmental program manager for HP, disagreed, saying in an interview that used cartridges are worse for the environment because they are poorer quality and waste more paper.

"With that waste ... any benefits of remanufacturing can easily be offset," he said. "That's why HP has stuck with a single use and recycling model – to deliver on our promise of quality and reliability."

He said HP has examined the environmental and climate costs of its recycling program, such as energy consumption, and found them acceptable. Asked to provide data to back his claim, Canonico declined. "Those are internal decision-making type of assessments," he said.

Nationwide, reused cartridges are growing in popularity. "It saves us a ton of money," said Eric Nelson, environmental purchasing manager for King County, Wash., which for

years has bought remanufactured cartridges. "We're not using new petro-chemicals to make new cartridges. We know we are doing a good thing for resource conservation."

There have been no quality or waste problems, Nelson said, calling their experience "great."

Inside a Cartridge World franchise in El Dorado Hills, owners Gary and Micaela McConnell recently ticked off a list of customers buying remanufactured cartridges from their store. It included Marshall Hospital, Red Hawk Casino and McDonald's – but not the state.

"They're not reusing," Gary McConnell said. "They are just recycling."

HP wouldn't correct defect

It wasn't the recycle vs. reuse debate that caught the attention of Dave Henning, a buyer in the Food Acquisitions Group at DGS. It was toner waste.

And it began with a routine office job – changing out an empty cartridge on an HP color laser printer. "Dave noticed that the toner cartridges needed to be changed more often than he expected and often felt like they were nearly full," a DGS report says.

An investigation found that cartridges were being shipped back to Virginia for recycling when they were over half full.

"When the printer uses color, all three color cartridges record one use, regardless of which colors were actually used," the report says. "When any of the three color cartridges becomes empty, the printer will

not print unless all three cartridges are changed."

Serious money was at stake. Color cartridges for the 5500dn model cost \$560 for all three. Since last year, the state has bought 399 of the HP printers, for about \$2,700 each.

In an employee suggestion report, Henning tallied up the numbers and estimated the state was losing \$1.5 million a year "in unnecessary cartridge replacement. Hewlett Packard should correct this defect."

HP, though, declined to do so. "We are limited in our ability to modify these products due to resource and business constraints," an account manager wrote DGS in an e-mail obtained through the California Public Records Act.

Tetz was dubious. "I share staff opinion that they could if they wanted to," he wrote in an e-mail, "or perhaps if it were profitable to do so."

DGS responded by dropping the model from the state printer contract. For his part, Henning applied for a state merit award – a cash prize given to employees who spotlight waste. He will soon pick up his winning \$3,476 check.

As Henning was examining cartridges, Martin – who, as engineering branch manager, worked in the procurement division – was calling attention to another concern: unfair competition.

"Perceptions of favoritism or an uneven playing field are counter to the division's image," Martin said in an e-mail.

His concern gained traction. The problem, documents show, was a provision in which agencies were encouraged to switch to new, more efficient HP printers by accumulating points for buying and recycling HP cartridges.

That could potentially steer business to HP without competitive bidding. "The points had the potential of influencing purchasing decisions," Jim Butler, deputy director and chief procurement officer at DGS, told The Bee. "We did not want anyone to feel like they had a conflict of interest."

Ultimately, DGS dropped the provision.

The points were dropped in October 2008, meaning no new energy-efficient, climate-friendly HP printers would be plugged into state office buildings in exchange for print cartridges after that date – and no greenhouse gas reductions would accumulate, either.

Where things stand

Today, the program limps along on recycling only. And not much of that is even getting done. At the state Consumer and Services Agency – which announced the program – only about 10 cartridges a year are recycled.

More than 600 were shipped by DGS back to Virginia for recycling, but none have left the agency's loading dock since March. Butler, who generally favors reusing cartridges, said DGS is working on a more environmentally responsible purchasing contract requiring that all new state printers be compatible with remanufactured cartridges.

Statewide, new cartridge purchases continue to dwarf remanufactured ones. From May 2007 through April 2008, agencies using the state office supplies contract spent \$6.2 million on new toner cartridges, DGS figures show, and just \$807,000 – or 11 percent – on reused ones.

Butler said he believes the numbers may be higher, because not all purchases are included in the contract.

Those numbers do not please Tetz, the purchasing manager. But they also are no longer his problem because he was transferred out of his job nine days ago in a move Butler said is unrelated to his criticism of the HP partnership.

"I'm pleased with the work Mr. Tetz has done," Butler said. "I think he has a great deal to be proud of."

Despite repeated requests by The Bee, Butler declined to let Tetz speak for himself. "I think we can give you the answers you're looking for by talking to me," Butler said.

For his part, Tetz is angry and frustrated by the events of the past 17 months.

"We continue to waste millions of dollars per year ... to the detriment of the environment," he wrote in a letter to the Bureau of State Audits in August. "I have attempted for well over a year to address and resolve a serious problem and ... have been ignored or thwarted at every turn."