DECEMBER 2009

THE NATION'S CAPITAL AND HP

In this issue:

HP in the *Huffington Post*: Leveraging Innovation and Technology towards a Low-Carbon Economy

Recently in the Huffington Post, HP's Engelina Jaspers, Vice President of Environmental Sustainability, describes a recent white paper from IT research and analysis firm IDC that highlights the potential to reduce emissions by over 25 percent annually by 2020 through intensive use of technology. Given the potential for environmental benefits and consumer savings, HP believes IT solutions "can help all countries, particularly developing economies building their infrastructure, achieve rapid economic development with a lower dependency on fossil fuels."

Exponential Growth of Sustainability Through IT

COP15 COPENHAGEN

At the UN Climate Change Conference in Copenhagen, there's one simple question that guides the policy discussions: How do we use less energy? Placing the environmental and resource costs of energy as a priority in everything we do, we can pave the way to a cleaner world and sustainable economic growth.

President Obama is expected to offer a goal of the United States reducing emissions to 17 percent below 2005 levels by 2020, and 83 percent by 2050. In the weeks leading up to the conference, China, Brazil, India and South Africa also announced new emissions goals.

HP believes the IT industry can help reach emissions reduction goals around the world through solutions to limit our environmental impact and technologies to help all of us use energy smarter.

Right now, about two percent of global carbon emissions are produced by the IT industry. As an industry, we have an obligation to continually improve our own energy efficiency and reduce our carbon footprint. However, HP and others in the IT industry are improving the way we all use energy. By developing the technologies and tools for all of us to reduce energy usage, we can affect the other 98 percent of global carbon emission sources.

> HP's goal is to reduce the energy consumption and associated greenhouse gas emissions of all its products to 40 percent below 2005 levels by the end of 2011.

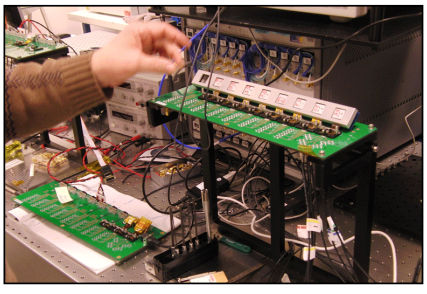
Responsibility: Efficiency From Within

As the world's largest technology company, HP recognizes the need to consistently study and improve every aspect of our company's environmental performance, including reducing the two percent of global carbon emissions produced by the IT industry.

One of our broadest initiatives is using our leverage to influence our supply chain. In 2004, we led the development of the Electronic Industry Code of Conduct, extending our environmental—as well as social—values to supply chain partners. In 2008, we became the first major IT company to share its list of major suppliers, and published the aggregated greenhouse gas emissions of our supply chain. And we're increasing reporting requirements for 2012. This assessment helps us determine where improvements can be made.

Given HP's prominence on the shelves, we're continually increasing the energy efficiency and recycled materials we use to build and ship our products. By 2011, we expect to save one billion kWh of electricity based on our design innovations.

Server technology is on the cusp of another breakthrough. Photonics technology, which allows the transmission of information through light, is being used in our blade servers, improving energy efficiency while reducing the need for copper—and copper mining. We estimate savings of 13 Terawatt-hours of electricity in 2012, which translates to $1.2 billion saved and a reduction of 8,000 metric tons of carbon dioxide emissions. We're working to use that same technology for intra-chip



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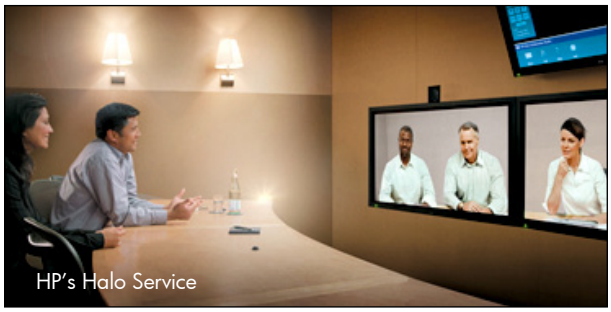
communication, and believe photonic servers and chips will result in 110 Terawatt-hours of electricity saved in 2017. This is a savings of $10 billion and a reduction of 68,000 metric tons of carbon dioxide emissions.

In short, every efficiency we bring to our products and our company operations impacts emissions and creates new opportunities for sustainability.

Innovation: Addressing the 98 Percent

While lowering the amount of carbon emissions produced by the IT industry is important, the greater opportunity lies in the role technology can play to reduce the other 98 percent of global carbon emissions. We're in the midst of a revolutionary wave of innovation in the IT industry. Computing power was once trapped in mainframes. But today's hardware brings individual consumers, businesses, governments, hospitals, utilities and industries access to advanced communications tools as well as the technology to support myriad automated computing processes.

Every advanced IT service has some root in saving energy, whether through lower energy use, reduced need for transportation, or creation of more efficient processes that lead to subsequent reductions.



HP's Halo Service

- Transportation: Three thousand pounds of carbon dioxide are generated per passenger on a round trip flight from New York to London. HP offers an advanced service called Halo that provides you-are-there video collaboration, allowing for less business travel without sacrificing performance and immediacy.

- Water: Detroit Water and Sewerage worked with HP to install an advanced metering infrastructure, creating seamless integration among its operations, geographical, and billing systems. This helps the utility operate more efficiently and gives its wholesale customers the ability to monitor water usage and limit its use when demand peaks and costs rise.

Did You Know?

The power management features on our desktop PCs save up to 481-kilowatt hours or 241 kilograms of CO_2 per year. The CO_2 emission reduction for every 12 PCs with these features enabled is equivalent to removing a car from the road for a year.

- Electricity: HP systems monitor operations for most of the world's nuclear power plants and 65 percent of the world's transmission control systems. These smarter grids will help utilities more intelligently allocate generation resources, resulting in less wasted power, while supporting deployment of advanced meters and energy efficiency advancements at homes and businesses.

- Printing Improvements: HP Managed Print Services can help large companies print more efficiently and produce less waste. 3M utilized this service to reduce energy consumption in its print environment by 80 percent while cutting carbon dioxide emissions by 8,240 metric tons—equivalent of taking 978 cars off the road.

- Reducing Publishing Waste: Thirty percent of traditional book stock is never sold, and traditional methods of magazine and newspaper printing result in enormous overruns, but in the very near future, every magazine could be personalized and every book could have a home. MagCloud, HP's digital commercial printing innovation, offers print-on-demand service, minimizing overruns and savings waste and energy.

- Monitoring Carbon Emissions: HP Enterprise Services developed a "Carbon Counter" for the Bank of Queensland to enable it to establish a baseline of its carbon impact and set goals. The bank is on target to reduce carbon dioxide emissions 33 percent by 2011, in compliance with the Australian government's National Greenhouse and Energy Reporting Act.

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Did You Know?

According to the Smart2020 report released last year, information and communications technologies could enable emissions reductions of 15 percent of business-as-usual emissions.

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- Sensor Technology: In 2008, HP Labs proved the existence of Memristor, the fourth element of electronic circuitry, which will enable very low-cost, self-powered sensors that can measure data with extraordinary sensitivity. These new sensors can enable real-time optimization of heating, cooling and electricity usage, greatly improving building energy efficiency. Sensors can also be used in agricultural environments to ensure exact usage of water and fertilizer.

In the long term, advanced computing and processing power can lead the architecture of more sustainable cities. We believe a world of applied intelligence can support nearly every aspect of the human experience, resulting in fully sustainable cities. Power, water, waste management and transportation can all improve efficiency and reduce energy through consideration of cities where energy is the organizing principle.

Innovation is the greatest resource we have today to meet our energy and environmental needs. By harnessing information with IT and developing the next round of innovation, we can reduce energy usage in the short term and build a sustainable global society in the long term.

HP in the Community: The Newton County (Georgia) School System received a 2009 HP Innovations in Education grant for the Sustainable Wetlands Environmental Emphasis Program. This grant award package of HP technology, cash and professional services valued at more than $265,000 will support environmental programs at Newton High School's 51 acre campus.

New HP Call Center Creating Jobs in New Mexico

HP CEO Mark Hurd and Governor Bill Richardson announced the opening of the new HP customer service and technical support center in Rio Rancho on December 2, 2009. Governor Richardson called it the most significant economic achievement of his two terms in office. The center will employ 1,300 high-wage workers by the end of 2012.

To view the KOB Channel 4 video of the event, click here.